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88

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105

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Thr Val Thr Glu Ile Thr Ser Ser Pro Ser His Pro Ala Asn Ser 210 215 220

Phe Tyr Tyr Pro Arg Leu Lys Ala Leu Pro Pro Ile Ala Arg Val Thr 225 230 235 240

Leu Val Arg Leu Arg Gln Ser Pro Arg Ala Phe Ile Pro Pro Ala Pro 245 250 255

Val Leu Pro Ser Arg Asp Asn Glu Ile Val Asp Ser Ala Ser Val Pro 260 265 270

Glu Thr Pro Leu Asp Cys Glu Val Ser Leu Trp Ser Ser Trp Gly Leu 275 280 285

Cys Gly Gly His Cys Gly Arg Leu Gly Thr Lys Ser Arg Thr Arg Tyr 290 295 300

Val Arg Val Gln Pro Ala Asn Asn Gly Ser Pro Cys Pro Glu Leu Glu 305 310 315 320

Glu Glu Ala Glu Cys Val Pro Asp Asn Cys Val

169

325 330

<210> 143 <211> 518 <212> PRT

<213> Homo sapien

<400> 143

Arg Cys Asp Ser Cys Thr Leu Phe Ala Val Glu Ser Ile Leu Gln Gly

His Ser Pro Glu Glu Arg Met Lys Gly Gly Ser Arg Gln Tyr Leu Arg

Asp Ser Val Leu Ser Asp Thr His Pro Gln Val Thr Cys Val Ser Gln

Leu Thr Arg Lys Leu Ala Arg Met Ala Leu Cys Gly His Arg Val Thr 55

Ala Met Leu Gln Gly Thr Cys Gly Gly Leu Gly Thr Gln Pro Pro His

Ser Ser Gly Leu Cys Ser Gln Ala Pro Trp Pro Gly Ala Gly Gln Val

Leu Met Ser Ile Leu Leu Ala Leu Pro Gly Thr Cys Trp Thr Gly Gln

Ala Gly Asn Ala Gly Ala Glu Trp Gln Phe Pro Pro Tyr Ser Ala Gly 120

Trp Gln Pro Leu Ala Ser Arg Ser Ala Cys Gly Leu Glu Arg Ile Ala

Gly Ser Trp Val Arg Ala Cys Trp Leu Trp Val Ser Gly Ser His Leu 145

Ile Trp Val Trp Asp Ser Gln Cys Arg Pro Gln Thr Thr Ala Asp Phe 165 170

Arg Leu Ser Arg Gly Gly Thr Gly Ala His Gln Pro Gly His Gly Pro

Arg Arg Pro Pro Pro Ser Met Leu Leu Ala Gly Val Glu Ala Gly Thr 200

Gly Pro Pro His Thr Cys Pro Pro Ser His Val Val Gly Thr Asp Val 210 215 220

Val Leu Arg Ser Ser Ser Asn Tyr Lys Leu Thr Val Ser Arg Pro Trp 225 230 235 240

Lys Gln Gly Pro Gly Gln Val Arg Gln Glu Ala Ala Trp Leu Ala Gly 245 250 255

Thr Thr Pro Gln Thr Glu Thr Val Pro Ser Pro Gly Ser Leu Leu Ile 260 265 270

Trp Asp Glu Leu Gly Leu Pro Val Pro Ala Ser Val Leu Pro Leu Pro 275 280 285

Ser Ala Gly Leu Gly Ser Ser Leu Ile Cys Pro Arg Gly Cys Pro Ile 290 295 300

Pro Ser Arg Cys Pro Arg Ala Thr Tyr Pro Thr Gly Arg Arg Ala Ser 305 310 315 320

Thr Val Arg Gly Val Gln Leu Val Trp Arg Glu Glu Pro Leu Val Gly 325 330 335

Arg Gly Ser Arg Glu Val Arg Phe Ala Pro His Leu Gly Ala Leu Gly 340 345 350

His Ser Gly Gln Gly Ser Thr Trp Pro Val Pro Trp Val Cys His Asp 355 360 365

Val Gly Val Pro Pro Pro Gln Gly Leu Glu Arg Gln Leu Arg Leu Leu 370 375 380

Arg Arg Asn Ala Gln Leu Gln Ser Leu Gly Cys Val Arg Gly Cys Tyr 385 390 395 400

Gly Ala Ile Pro Ser Cys Arg Ser Leu Cys Asp Cys Ala Glu Lys Arg 405 410 415

Lys Cys Pro Arg Arg Val Gly Val Ala Ser Asp Glu Cys Thr Arg Trp
420 425 430

Trp Glu Val Ala Ser Val Cys Thr Lys Arg Leu Phe Thr Arg Ala Phe
435
440
445

171

Thr Ser Val Ser Pro Leu Leu Gly Pro Val Pro Glu Thr Pro Leu Asp 450 455

Cys Glu Val Ser Leu Trp Ser Ser Trp Gly Leu Cys Gly Gly His Cys 465 . 470 475

Gly Arg Leu Gly Thr Lys Ser Arg Thr Arg Tyr Val Arg Val Gln Pro 485 490

Ala Asn Asn Gly Ser Pro Cys Pro Glu Leu Glu Glu Glu Ala Glu Cys 505

Val Pro Asp Asn Cys Val 515

<210> 144

<211> 298 <212> PRT <213> Homo sapien

<400> 144

Met Glu Asn Pro Ser Pro Ala Ala Leu Gly Lys Ala Leu Cys Ala 10

Leu Leu Leu Ala Thr Leu Gly Ala Ala Gly Gln Pro Leu Gly Gly Glu 25

Ser Ile Cys Ser Ala Arg Ala Pro Ala Lys Tyr Ser Ile Thr Phe Thr

Gly Lys Trp Ser Gln Thr Ala Phe Pro Lys Gln Tyr Pro Leu Phe Arg

Pro Pro Ala Gln Trp Ser Ser Leu Leu Gly Ala Ala His Ser Ser Asp

Tyr Ser Met Trp Arg Lys Asn Gln Tyr Val Ser Asn Gly Leu Arg Asp

Phe Ala Glu Arg Gly Glu Ala Trp Ala Leu Met Lys Glu Ile Glu Ala 105 100

Ala Gly Glu Ala Leu Gln Ser Val His Glu Val Phe Ser Ala Pro Ala 115

Val Pro Ser Gly Thr Gly Gln Thr Ser Ala Glu Leu Glu Val Gln Arg 130 135 140

Arg His Ser Leu Val Ser Phe Val Val Arg Ile Val Pro Ser Pro Asp

Trp Phe Val Gly Val Asp Ser Leu Asp Leu Cys Asp Gly Asp Arg Trp 165

Arg Glu Gln Ala Ala Leu Asp Leu Tyr Pro Tyr Asp Ala Gly Thr Asp

Ser Gly Phe Thr Phe Ser Ser Pro Asn Phe Ala Thr Ile Pro Gln Asp 200

Thr Val Thr Glu Ile Thr Ser Ser Pro Ser His Pro Ala Asn Ser 210 215 220

Phe Tyr Tyr Pro Arg Leu Lys Ala Leu Pro Pro Ile Ala Arg Val Thr 230 235

Leu Leu Arg Leu Arg Gln Ser Pro Arg Ala Phe Ile Pro Pro Ala Pro 245 250

Val Leu Pro Ser Arg Asp Asn Glu Ile Val Asp Ser Ala Ser Gly Asn

Gly His Thr Gly His Met Gly His Thr Ala Ala Pro Asn Pro Ala Thr

Gly Arg Pro Pro Asn Pro Asn Leu Arg Leu 295

<210> 145

<211> 504

<212> PRT <213> Homo sapien

<400> 145

Arg Cys Asp Ser Cys Thr Leu Phe Ala Val Glu Ser Ile Leu Gln Gly 5

His Ser Pro Glu Glu Arg Met Lys Gly Gly Ser Arg Gln Tyr Leu Arg

Asp Ser Val Leu Ser Asp Thr His Pro Gln Val Thr Cys Val Ser Gln

173

Leu Thr Arg Lys Leu Ala Arg Met Ala Leu Cys Gly His Arg Val Thr 50 55 60

Ala Met Leu Gln Gly Thr Cys Gly Gly Leu Gly Thr Gln Pro Pro His 65 70 75 80

Ser Ser Gly Leu Cys Ser Gln Ala Pro Trp Pro Gly Ala Gly Gln Val 85 90 95

Leu Met Ser Ile Leu Leu Ala Leu Pro Gly Thr Cys Trp Thr Gly Gln 100 105 110

Ala Gly Asn Ala Gly Ala Glu Trp Gln Phe Pro Pro Tyr Ser Ala Gly 115 120 125

Trp Gln Pro Leu Ala Ser Arg Ser Ala Cys Gly Leu Glu Arg Ile Ala 130 135 140

Gly Ser Trp Val Arg Ala Cys Trp Leu Trp Val Ser Gly Ser His Leu 145 150 150 160

Ile Trp Val Trp Asp Ser Gln Cys Arg Pro Gln Thr Thr Ala Asp Phe
165 170 175

Arg Leu Ser Arg Gly Gly Thr Gly Ala His Gln Pro Gly His Gly Pro

Arg Arg Pro Pro Pro Ser Met Leu Leu Ala Gly Val Glu Ala Gly Thr

Gly Pro Pro His Thr Cys Pro Pro Ser His Val Val Gly Thr Asp Val
210 215 220

Val Leu Arg Ser Ser Ser Asn Tyr Lys Leu Thr Val Ser Arg Pro Trp 225 230 235 240

Lys Gln Gly Pro Gly Gln Val Arg Gln Glu Ala Ala Trp Leu Ala Gly 245 250 255

Thr Thr Pro Gln Thr Glu Thr Val Pro Ser Pro Gly Ser Leu Leu Ile 260 265 270

Trp Asp Glu Leu Gly Leu Pro Val Pro Ala Ser Val Leu Pro Leu Pro 275 280 285

Ser Ala Gly Leu Gly Ser Ser Leu Ile Cys Pro Arg Gly Cys Pro Ile

174

300 290 295

Pro Ser Arg Cys Pro Arg Ala Thr Tyr Pro Thr Gly Arg Arg Ala Ser 310 315

Thr Val Arg Gly Val Gln Leu Val Trp Arg Glu Glu Pro Leu Val Gly

Arg Gly Ser Arg Glu Val Arg Phe Ala Pro His Leu Gly Ala Leu Gly 345

His Ser Gly Gln Gly Ser Thr Trp Pro Val Pro Trp Ala Arg Arg Gly 355 360

Ile Lys Ser Ala Val Ala Lys Gln Lys Gln Tyr Cys Arg Gly Arg Val 375

Gly Arg Asp Cys Ala Met Ser Ser Glu Gln Glu Ala Gly His Gly Glu

Lys Gly Gly Arg Arg Thr Glu Pro Ala Val Pro Ala Glu Gly Pro Glu 405 410

Trp Ala Val Gly Thr Glu His Arg Pro Pro Pro Thr Arg Val Ser Pro 425 420

Val Thr Ser Gly Phe Pro Arg Ala Glu Ala Gly Met Gly Met Trp Arg 435 440

Leu Ala Pro Arg Arg Leu Arg Gln Val His Ala Lys Pro Ala Trp Leu 455

Ser Ser Gly Phe Leu Leu Thr Arg Trp Met Pro Val Pro Arg Pro Pro

Asp Arg Ala Leu Gln His Trp Arg Gly Leu Trp Trp Gly Pro Arg Cys 490

Arg Thr Gly Thr Ala Ser Ala His 500

<210> 146 <211> 829 <212> PRT <213> Homo sapien

<400> 146

175

Met Glu Asn Pro Ser Pro Ala Ala Ala Leu Gly Lys Ala Leu Cys Ala 1 5 10 15

Leu Leu Leu Ala Thr Leu Gly Ala Ala Gly Gln Pro Leu Gly Glu 20 25 30

Ser Ile Cys Ser Ala Arg Ala Pro Ala Lys Tyr Ser Ile Thr Phe Thr 35 40 45

Gly Lys Trp Ser Gln Thr Ala Phe Pro Lys Gln Tyr Pro Leu Phe Arg 50 55 60

Pro Pro Ala Gln Trp Ser Ser Leu Leu Gly Ala Ala His Ser Ser Asp 65 70 75 80

Tyr Ser Met Trp Arg Lys Asn Gln Tyr Val Ser Asn Gly Leu Arg Asp 85 90 95

Phe Ala Glu Arg Gly Glu Ala Trp Ala Leu Met Lys Glu Ile Glu Ala 100 105 110

Ala Gly Glu Ala Leu Gln Ser Val His Glu Val Phe Ser Ala Pro Ala 115 120 125

Val Pro Ser Gly Thr Gly Gln Thr Ser Ala Glu Leu Glu Val Gln Arg 130 135 140

Arg His Ser Leu Val Ser Phe Val Val Arg Ile Val Pro Ser Pro Asp 145 150 155 160

Trp Phe Val Gly Val Asp Ser Leu Asp Leu Cys Asp Gly Asp Arg Trp
165 170 175

Arg Glu Gln Ala Ala Leu Asp Leu Tyr Pro Tyr Asp Ala Gly Thr Asp 180 185 190

Ser Gly Phe Thr Phe Ser Ser Pro Asn Phe Ala Thr Ile Pro Gln Asp 195 200 205

Thr Val Thr Glu Ile Thr Ser Ser Ser Pro Ser His Pro Ala Asn Ser 210 215 220

Phe Tyr Tyr Pro Arg Leu Lys Ala Leu Pro Pro Ile Ala Arg Val Thr 225 230 235 240

176

Leu Leu Arg Leu Arg Gln Ser Pro Arg Ala Phe Ile Pro Pro Ala Pro 245 250 255

Val Leu Pro Ser Arg Asp Asn Glu Ile Val Asp Ser Ala Ser Gly Asn 260 265 270

Gly His Thr Gly His Met Gly His Thr Ala Ala Pro Asn Pro Ala Thr 275 280 285

Gly Arg Pro Pro Asn Pro Asn Gln Gly Ser Glu Lys Phe Gln Val Gly 290 295 300

Ile Arg Ser Ala Tyr Cys Lys Met Val Pro Arg Arg Phe Arg Ile Leu 305 310 315 320

Leu Ile His Thr Leu Lys Met Asp Ser Cys Thr Leu Phe Ala Val Glu 325 330 335

Ser Ile Leu Gln Gly His Ser Pro Glu Glu Arg Met Lys Gly Gly Ser 340 345 350

Arg Gln Tyr Leu Arg Asp Ser Val Leu Ser Asp Thr His Pro Gln Val 355 360 365

Thr Cys Val Ser Gln Leu Thr Arg Lys Leu Ala Arg Met Ala Leu Cys 370 380

Gly His Arg Val Thr Ala Met Leu Gln Gly Thr Cys Gly Gly Leu Gly 385 390 400

Thr Gln Pro Pro His Ser Ser Gly Leu Cys Ser Gln Ala Pro Trp Pro 405 410 415

Gly Ala Gly Gln Val Leu Met Ser Ile Leu Leu Ala Leu Pro Gly Thr 420 425 430

Cys Trp Thr Gly Gln Ala Gly Asn Ala Gly Ala Glu Trp Gln Phe Pro
435 440 445

Pro Tyr Ser Ala Gly Trp Gln Pro Leu Ala Ser Arg Ser Ala Cys Gly
450 460

Leu Glu Arg Ile Ala Gly Ser Trp Val Arg Ala Cys Trp Leu Trp Val 465 470 475 480

Ser Gly Ser His Leu Ile Trp Val Trp Asp Ser Gln Cys Arg Pro Gln

485 490 495

Thr Thr Ala Asp Phe Arg Leu Ser Arg Gly Gly Thr Gly Ala His Gln 500 505 510

Pro Gly His Gly Pro Arg Arg Pro Pro Pro Ser Met Leu Leu Ala Gly 515 520 525

Val Glu Ala Gly Thr Gly Pro Pro His Thr Cys Pro Pro Ser His Val 530 535 540

Val Gly Thr Asp Val Val Leu Arg Ser Ser Asn Tyr Lys Leu Thr 545 550 560

Val Ser Arg Pro Trp Lys Gln Gly Pro Gly Gln Val Arg Gln Glu Ala 565 570 575

Ala Trp Leu Ala Gly Thr Thr Pro Gln Thr Glu Thr Val Pro Ser Pro 580 585 590

Gly Ser Leu Leu Ile Trp Asp Glu Leu Gly Leu Pro Val Pro Ala Ser 595 600 605

Val Leu Pro Leu Pro Ser Ala Gly Leu Gly Ser Ser Leu Ile Cys Pro 610 615 620

Arg Gly Cys Pro Ile Pro Ser Arg Cys Pro Arg Ala Thr Tyr Pro Thr 625 630 635 640

Gly Arg Arg Ala Ser Thr Val Arg Gly Val Gln Leu Val Trp Arg Glu  $645 \\ \rm 650 \\ \rm 655$ 

Glu Pro Leu Val Gly Arg Gly Ser Arg Glu Val Arg Phe Ala Pro His 660 665 670

Leu Gly Ala Leu Gly His Ser Gly Gln Gly Ser Thr Trp Pro Val Pro 675 680 685

Trp Ala Arg Arg Gly Ile Lys Ser Ala Val Ala Lys Gln Lys Gln Tyr
690 700

Cys Arg Gly Arg Val Gly Arg Asp Cys Ala Met Ser Ser Glu Gln Glu

Ala Gly His Gly Glu Lys Gly Gly Arg Arg Thr Glu Pro Ala Val Pro 725 730 735

Ala Glu Gly Pro Glu Trp Ala Val Gly Thr Glu His Arg Pro Pro

Thr Arg Val Ser Pro Val Thr Ser Gly Phe Pro Arg Ala Glu Ala Gly

Met Gly Met Trp Arg Leu Ala Pro Arg Arg Leu Arg Gln Val His Ala

Lys Pro Ala Trp Leu Ser Ser Gly Phe Leu Leu Thr Arg Trp Met Pro

Val Pro Arg Pro Pro Asp Arg Ala Leu Gln His Trp Arg Gly Leu Trp

Trp Gly Pro Arg Cys Arg Thr Gly Thr Ala Ser Ala His 825 820

<210> 147 <211> 504

<212> PRT

<213> Homo sapien

<400> 147

Arg Cys Asp Ser Cys Thr Leu Phe Ala Val Glu Ser Ile Leu Gln Gly

His Ser Pro Glu Glu Arg Met Lys Gly Gly Ser Arg Gln Tyr Leu Arg

Asp Ser Val Leu Ser Asp Thr His Pro Gln Val Thr Cys Val Ser Gln

Leu Thr Arg Lys Leu Ala Arg Met Ala Leu Cys Gly His Arg Val Thr

Ala Met Leu Gln Gly Thr Cys Gly Gly Leu Gly Thr Gln Pro Pro His

Ser Ser Gly Leu Cys Ser Gln Ala Pro Trp Pro Gly Ala Gly Gln Val

Leu Met Ser Ile Leu Leu Ala Leu Pro Gly Thr Cys Trp Thr Gly Gln 100 105

179

Ala Gly Asn Ala Gly Ala Glu Trp Gln Phe Pro Pro Tyr Ser Ala Gly
115 120 125

Trp Gln Pro Leu Ala Ser Arg Ser Ala Cys Gly Leu Glu Arg Ile Ala 130 135 140

Gly Ser Trp Val Arg Ala Cys Trp Leu Trp Val Ser Gly Ser His Leu 145 150 155 160

Ile Trp Val Trp Asp Ser Gln Cys Arg Pro Gln Thr Thr Ala Asp Phe
165 170 175

Arg Leu Ser Arg Gly Gly Thr Gly Ala His Gln Pro Gly His Gly Pro 180 185 190

Arg Arg Pro Pro Pro Ser Met Leu Leu Ala Gly Val Glu Ala Gly Thr 195 200 205

Gly Pro Pro His Thr Cys Pro Pro Ser His Val Val Gly Thr Asp Val 210 215 220

Val Leu Arg Ser Ser Ser Asn Tyr Lys Leu Thr Val Ser Arg Pro Trp 225 230 235 240

Lys Gln Gly Pro Gly Gln Val Arg Gln Glu Ala Ala Trp Leu Ala Gly 245 250 255

Thr Thr Pro Gln Thr Glu Thr Val Pro Ser Pro Gly Ser Leu Leu Ile 260 265 270

Trp Asp Glu Leu Gly Leu Pro Val Pro Ala Ser Val Leu Pro Leu Pro 275 280 285

Ser Ala Gly Leu Gly Ser Ser Leu Ile Cys Pro Arg Gly Cys Pro Ile 290 295 300

Pro Ser Arg Cys Pro Arg Ala Thr Tyr Pro Thr Gly Arg Arg Ala Ser 305 310 315 320

Thr Val Arg Gly Val Gln Leu Val Trp Arg Glu Glu Pro Leu Val Gly 325 330 335

Arg Gly Ser Arg Glu Val Arg Phe Ala Pro His Leu Gly Ala Leu Gly 340 345 350

His Ser Gly Gln Gly Ser Thr Trp Pro Val Pro Trp Ala Arg Arg Gly

180

355 360 365

Ile Lys Ser Ala Val Ala Lys Gln Lys Gln Tyr Cys Arg Gly Arg Val 375

Gly Arg Asp Cys Ala Met Ser Ser Glu Gln Glu Ala Gly His Gly Glu

Lys Gly Gly Arg Arg Thr Glu Pro Ala Val Pro Ala Glu Gly Pro Glu 405

Trp Ala Val Gly Thr Glu His Arg Pro Pro Pro Thr Arg Val Ser Pro 420 425

Val Thr Ser Gly Phe Pro Arg Ala Glu Ala Gly Met Gly Met Trp Arg

Leu Ala Pro Arg Arg Leu Arg Gln Val His Ala Lys Pro Ala Trp Leu

Ser Ser Gly Phe Leu Leu Thr Arg Trp Met Pro Val Pro Arg Pro Pro 470 475

Asp Arg Ala Leu Gln His Trp Arg Gly Leu Trp Trp Gly Pro Arg Cys 490 495 485

Arg Thr Gly Thr Ala Ser Ala His 500

<210> 148 <211> 935 <212> PRT

<213> Homo sapien

<400> 148

Gly Gly Ile Gly Arg Gly Asp Lys Glu Arg Gly Ala Ala Ala Leu Pro

Gly Glu Glu Gly Asp Pro Thr Arg Gly Arg Ser Leu Gly Arg Ala Ser

Trp Glu Ser Gly Ser Pro Arg Arg Pro Arg Ser Pro Phe Ser Ser Phe

Leu Pro Arg Pro Ile Cys Leu Ser Leu Glu Ala Arg Pro Cys Ser Ile 50 55

181

Glu Asp Arg Arg Asn Trp Ser Leu Ile Gly Arg Pro Gly Ala Pro Ala 65 70 75 80

Ser Gly Leu Asn Arg Ser Ser Gly Leu Trp Leu Gly Pro Asp Arg Cys 85 90 95

Arg Pro Arg Ser Arg Cys Ser Cys Arg Val Met Glu Asn Pro Ser Pro 100 105 110

Ala Ala Leu Gly Lys Ala Leu Cys Ala Leu Leu Leu Ala Thr Leu 115 120 125

Gly Ala Ala Gly Gln Pro Leu Gly Glu Ser Ile Cys Ser Ala Arg 130 135 140

Ala Pro Ala Lys Tyr Ser Ile Thr Phe Thr Gly Lys Trp Ser Gln Thr 145 150 155 160

Ala Phe Pro Lys Gln Tyr Pro Leu Phe Arg Pro Pro Ala Gln Trp Ser 165 170 175

Ser Leu Leu Gly Ala Ala His Ser Ser Asp Tyr Ser Met Trp Arg Lys 180 185 190

Asn Gln Tyr Val Ser Asn Gly Leu Arg Asp Phe Ala Glu Arg Gly Glu 195 200 205

Ala Trp Ala Leu Met Lys Glu Ile Glu Ala Ala Gly Glu Ala Leu Gln 210 215 220

Ser Val His Glu Val Phe Ser Ala Pro Ala Val Pro Ser Gly Thr Gly 225 230 235 240

Gln Thr Ser Ala Glu Leu Glu Val Gln Arg Arg His Ser Leu Val Ser 245 250 255

Phe Val Val Arg Ile Val Pro Ser Pro Asp Trp Phe Val Gly Val Asp 260 265 270

Ser Leu Asp Leu Cys Asp Gly Asp Arg Trp Arg Glu Gln Ala Ala Leu 275 280 285

Asp Leu Tyr Pro Tyr Asp Ala Gly Thr Asp Ser Gly Phe Thr Phe Ser 290 295 300

182

Ser Pro Asn Phe Ala Thr Ile Pro Gln Asp Thr Val Thr Glu Ile Thr 305 310 315 320

Ser Ser Ser Pro Ser His Pro Ala Asn Ser Phe Tyr Tyr Pro Arg Leu 325 330 335

Lys Ala Leu Pro Pro Ile Ala Arg Val Thr Leu Leu Arg Leu Arg Gln 340 345 350

Ser Pro Arg Ala Phe Ile Pro Pro Ala Pro Val Leu Pro Ser Arg Asp 355 360 365

Asn Glu Ile Val Asp Ser Ala Ser Gly Asn Gly His Thr Gly His Met 370 380

Gly His Thr Ala Ala Pro Asn Pro Ala Thr Gly Arg Pro Pro Asn Pro 385 390 395 400

Asn Gln Gly Ser Glu Lys Phe Gln Val Gly Ile Arg Ser Ala Tyr Cys 405 410 415

Lys Met Val Pro Arg Arg Phe Arg Ile Leu Leu Ile His Thr Leu Lys
420 425 430

Met Asp Ser Cys Thr Leu Phe Ala Val Glu Ser Ile Leu Gln Gly His
435 440 445

Ser Pro Glu Glu Arg Met Lys Gly Gly Ser Arg Gln Tyr Leu Arg Asp 450 455 460

Ser Val Leu Ser Asp Thr His Pro Gln Val Thr Cys Val Ser Gln Leu 465 470 480

Thr Arg Lys Leu Ala Arg Met Ala Leu Cys Gly His Arg Val Thr Ala 485 490 495

Met Leu Gln Gly Thr Cys Gly Gly Leu Gly Thr Gln Pro Pro His Ser 500 505 510

Ser Gly Leu Cys Ser Gln Ala Pro Trp Pro Gly Ala Gly Gln Val Leu 515 520 525

Met Ser Ile Leu Leu Ala Leu Pro Gly Thr Cys Trp Thr Gly Gln Ala 530 540

Gly Asn Ala Gly Ala Glu Trp Gln Phe Pro Pro Tyr Ser Ala Gly Trp

545 550 555 560 Gln Pro Leu Ala Ser Arg Ser Ala Cys Gly Leu Glu Arg Ile Ala Gly Ser Trp Val Arg Ala Cys Trp Leu Trp Val Ser Gly Ser His Leu Ile Trp Val Trp Asp Ser Gln Cys Arg Pro Gln Thr Thr Ala Asp Phe Arg Leu Ser Arg Gly Gly Thr Gly Ala His Gln Pro Gly His Gly Pro Arg 610 615 Arg Pro Pro Pro Ser Met Leu Leu Ala Gly Val Glu Ala Gly Thr Gly Pro Pro His Thr Cys Pro Pro Ser His Val Val Gly Thr Asp Val Val 645 650 Leu Arg Ser Ser Ser Asn Tyr Lys Leu Thr Val Ser Arg Pro Trp Lys 665 Gln Gly Pro Gly Gln Val Arg Gln Glu Ala Ala Trp Leu Ala Gly Thr 675 680 Thr Pro Gln Thr Glu Thr Val Pro Ser Pro Gly Ser Leu Leu Ile Trp 690 695 Asp Glu Leu Gly Leu Pro Val Pro Ala Ser Val Leu Pro Leu Pro Ser 705 710 715 Ala Gly Leu Gly Ser Ser Leu Ile Cys Pro Arg Gly Cys Pro Ile Pro 730 Ser Arg Cys Pro Arg Ala Thr Tyr Pro Thr Gly Arg Arg Ala Ser Thr 745 Val Arg Gly Val Gln Leu Val Trp Arg Glu Glu Pro Leu Val Gly Arg 755 Gly Ser Arg Glu Val Arg Phe Ala Pro His Leu Gly Ala Leu Gly His Ser Gly Gln Gly Ser Thr Trp Pro Val Pro Trp Ala Arg Arg Gly Ile 795

Lys Ser Ala Val Ala Lys Gln Lys Gln Tyr Cys Arg Gly Arg Val Gly

Arg Asp Cys Ala Met Ser Ser Glu Gln Glu Ala Gly His Gly Glu Lys 820 825 830

Gly Gly Arg Arg Thr Glu Pro Ala Val Pro Ala Glu Gly Pro Glu Trp 835 840 845

Ala Val Gly Thr Glu His Arg Pro Pro Pro Thr Arg Val Ser Pro Val 850 855 860

Thr Ser Gly Phe Pro Arg Ala Glu Ala Gly Met Gly Met Trp Arg Leu 865 870 875 880

Ala Pro Arg Arg Leu Arg Gln Val His Ala Lys Pro Ala Trp Leu Ser 885 890 895

Ser Gly Phe Leu Leu Thr Arg Trp Met Pro Val Pro Arg Pro Pro Asp 900 905 910

Arg Ala Leu Gln His Trp Arg Gly Leu Trp Trp Gly Pro Arg Cys Arg 915 920 925

Thr Gly Thr Ala Ser Ala His

<210> 149

<211> 504

<212> PRT

<213> Homo sapien

<400> 149

Arg Cys Asp Ser Cys Thr Leu Phe Ala Val Glu Ser Ile Leu Gln Gly 1 5 10 15

His Ser Pro Glu Glu Arg Met Lys Gly Gly Ser Arg Gln Tyr Leu Arg 20 25 30

Asp Ser Val Leu Ser Asp Thr His Pro Gln Val Thr Cys Val Ser Gln 35 40 45

Leu Thr Arg Lys Leu Ala Arg Met Ala Leu Cys Gly His Arg Val Thr 50 55 60

185

Ala Met Leu Gln Gly Thr Cys Gly Gly Leu Gly Thr Gln Pro Pro His 65 70 75 80

Ser Ser Gly Leu Cys Ser Gln Ala Pro Trp Pro Gly Ala Gly Gln Val 85 90 95

Leu Met Ser Ile Leu Leu Ala Leu Pro Gly Thr Cys Trp Thr Gly Gln 100 105 110

Ala Gly Asn Ala Gly Ala Glu Trp Gln Phe Pro Pro Tyr Ser Ala Gly
115 120 125

Trp Gln Pro Leu Ala Ser Arg Ser Ala Cys Gly Leu Glu Arg Ile Ala 130 135 140

Gly Ser Trp Val Arg Ala Cys Trp Leu Trp Val Ser Gly Ser His Leu 145 150 155 160

Ile Trp Val Trp Asp Ser Gln Cys Arg Pro Gln Thr Thr Ala Asp Phe
165 170 175

Arg Leu Ser Arg Gly Gly Thr Gly Ala His Gln Pro Gly His Gly Pro 180 185 190

Arg Arg Pro Pro Pro Ser Met Leu Leu Ala Gly Val Glu Ala Gly Thr 195 200 205

Gly Pro Pro His Thr Cys Pro Pro Ser His Val Val Gly Thr Asp Val
210 215 220

Val Leu Arg Ser Ser Ser Asn Tyr Lys Leu Thr Val Ser Arg Pro Trp
225 230 235 240

Lys Gln Gly Pro Gly Gln Val Arg Gln Glu Ala Ala Trp Leu Ala Gly 245 250 255

Thr Thr Pro Gln Thr Glu Thr Val Pro Ser Pro Gly Ser Leu Leu Ile 260 265 270

Trp Asp Glu Leu Gly Leu Pro Val Pro Ala Ser Val Leu Pro Leu Pro 275 280 285

Ser Ala Gly Leu Gly Ser Ser Leu Ile Cys Pro Arg Gly Cys Pro Ile 290 295 300

Pro Ser Arg Cys Pro Arg Ala Thr Tyr Pro Thr Gly Arg Arg Ala Ser

186

305 310 315 320

Thr Val Arg Gly Val Gln Leu Val Trp Arg Glu Glu Pro Leu Val Gly

Arg Gly Ser Arg Glu Val Arg Phe Ala Pro His Leu Gly Ala Leu Gly

His Ser Gly Gln Gly Ser Thr Trp Pro Val Pro Trp Ala Arg Arg Gly

Ile Lys Ser Ala Val Ala Lys Gln Lys Gln Tyr Cys Arg Gly Arg Val

Gly Arg Asp Cys Ala Met Ser Ser Glu Gln Glu Ala Gly His Gly Glu

Lys Gly Gly Arg Arg Thr Glu Pro Ala Val Pro Ala Glu Gly Pro Glu 410 405

Trp Ala Val Gly Thr Glu His Arg Pro Pro Pro Thr Arg Val Ser Pro 425

Val Thr Ser Gly Phe Pro Arg Ala Glu Ala Gly Met Gly Met Trp Arg 435 440 445

Leu Ala Pro Arg Arg Leu Arg Gln Val His Ala Lys Pro Ala Trp Leu 455 450

Ser Ser Gly Phe Leu Leu Thr Arg Trp Met Pro Val Pro Arg Pro Pro 465 470 475

Asp Arg Ala Leu Gln His Trp Arg Gly Leu Trp Trp Gly Pro Arg Cys 485 490

Arg Thr Gly Thr Ala Ser Ala His 500

<210> 150 <211> 504

<212> PRT

<213> Homo sapien

<400> 150

Arg Cys Asp Ser Cys Thr Leu Phe Ala Val Glu Ser Ile Leu Gln Gly 5

187

His Ser Pro Glu Glu Arg Met Lys Gly Gly Ser Arg Gln Tyr Leu Arg 20 25 30

Asp Ser Val Leu Ser Asp Thr His Pro Gln Val Thr Cys Val Ser Gln 35 40 45

Leu Thr Arg Lys Leu Ala Arg Met Ala Leu Cys Gly His Arg Val Thr 50 55 60

Ala Met Leu Gln Gly Thr Cys Gly Gly Leu Gly Thr Gln Pro Pro His 65 70 75 80

Ser Ser Gly Leu Cys Ser Gln Ala Pro Trp Pro Gly Ala Gly Gln Val 85 90 95

Leu Met Ser Ile Leu Leu Ala Leu Pro Gly Thr Cys Trp Thr Gly Gln 100 105 110

Ala Gly Asn Ala Gly Ala Glu Trp Gln Phe Pro Pro Tyr Ser Ala Gly 115 120 125

Trp Gln Pro Leu Ala Ser Arg Ser Ala Cys Gly Leu Glu Arg Ile Ala 130 135 140

Gly Ser Trp Val Arg Ala Cys Trp Leu Trp Val Ser Gly Ser His Leu 145 150 155 160

Ile Trp Val Trp Asp Ser Gln Cys Arg Pro Gln Thr Thr Ala Asp Phe

Arg Leu Ser Arg Gly Gly Thr Gly Ala His Gln Pro Gly His Gly Pro 180 185 190

Arg Arg Pro Pro Pro Ser Met Leu Leu Ala Gly Val Glu Ala Gly Thr 195 200 205

Gly Pro Pro His Thr Cys Pro Pro Ser His Val Val Gly Thr Asp Val 210 215 220

Val Leu Arg Ser Ser Ser Asn Tyr Lys Leu Thr Val Ser Arg Pro Trp 225 230 235 240

Lys Gln Gly Pro Gly Gln Val Arg Gln Glu Ala Ala Trp Leu Ala Gly 245 250 255

188

Thr Thr Pro Gln Thr Glu Thr Val Pro Ser Pro Gly Ser Leu Leu Ile 260 265 270

Trp Asp Glu Leu Gly Leu Pro Val Pro Ala Ser Val Leu Pro Leu Pro 275 280 285

Ser Ala Gly Leu Gly Ser Ser Leu Ile Cys Pro Arg Gly Cys Pro Ile 290 295 300

Pro Ser Arg Cys Pro Arg Ala Thr Tyr Pro Thr Gly Arg Arg Ala Ser 305 310 315 320

Thr Val Arg Gly Val Gln Leu Val Trp Arg Glu Glu Pro Leu Val Gly 325 330 335

Arg Gly Ser Arg Glu Val Arg Phe Ala Pro His Leu Gly Ala Leu Gly 340 345 350

His Ser Gly Gln Gly Ser Thr Trp Pro Val Pro Trp Ala Arg Arg Gly 355 360 365

Ile Lys Ser Ala Val Ala Lys Gln Lys Gln Tyr Cys Arg Gly Arg Val 370 375 380

Gly Arg Asp Cys Ala Met Ser Ser Glu Gln Glu Ala Gly His Gly Glu 385 390 395 400

Lys Gly Gly Arg Thr Glu Pro Ala Val Pro Ala Glu Gly Pro Glu 405 410 415

Trp Ala Val Gly Thr Glu His Arg Pro Pro Pro Thr Arg Val Ser Pro
420 425 430

Val Thr Ser Gly Phe Pro Arg Ala Glu Ala Gly Met Gly Met Trp Arg 435 440 445

Leu Ala Pro Arg Arg Leu Arg Gln Val His Ala Lys Pro Ala Trp Leu
450 455 460

Ser Ser Gly Phe Leu Leu Thr Arg Trp Met Pro Val Pro Arg Pro Pro 465 470 475 480

Asp Arg Ala Leu Gln His Trp Arg Gly Leu Trp Trp Gly Pro Arg Cys
485 490 495

Arg Thr Gly Thr Ala Ser Ala His

189

500

<210> 151 <211> 290 <212> PRT <213> Homo sapien

<400> 151

Gly Gly Ile Gly Arg Gly Asp Lys Glu Arg Gly Ala Ala Ala Leu Pro

Gly Glu Glu Gly Asp Pro Thr Arg Gly Arg Ser Leu Gly Arg Ala Ser

Trp Glu Ser Gly Ser Pro Arg Arg Pro Arg Ser Pro Phe Ser Ser Phe

Leu Pro Arg Pro Ile Cys Leu Ser Leu Glu Ala Arg Pro Cys Ser Ile 50 55 60

Glu Asp Arg Arg Asn Trp Ser Leu Ile Gly Arg Pro Gly Ala Pro Ala

Ser Gly Leu Asn Arg Ser Ser Gly Leu Trp Leu Gly Pro Asp Arg Cys

Arg Pro Arg Ser Arg Cys Ser Cys Arg Val Met Glu Asn Pro Ser Pro 105

Ala Ala Ala Leu Gly Lys Ala Leu Cys Ala Leu Leu Leu Ala Thr Leu

Gly Ala Ala Gly Gln Pro Leu Gly Glu Ser Ile Cys Ser Ala Arg 130

Ala Pro Ala Lys Tyr Ser Ile Thr Phe Thr Gly Lys Trp Ser Gln Thr 145 150

Ala Phe Pro Lys Gln Tyr Pro Leu Phe Arg Pro Pro Ala Gln Trp Ser 165 170

Ser Leu Leu Gly Ala Ala His Ser Ser Asp Tyr Ser Met Trp Arg Lys

Asn Gln Tyr Val Ser Asn Gly Leu Arg Asp Phe Ala Glu Arg Gly Glu

190

Ala Trp Ala Leu Met Lys Glu Ile Glu Ala Ala Gly Glu Ala Leu Gln

Ser Val His Glu Val Phe Ser Ala Pro Ala Val Pro Ser Gly Thr Gly

Ser Phe Leu Gln Gln Gly Cys Pro Pro Ser Pro Gly Val Pro Thr Gly 250

Phe Pro Gly Ala Ser Tyr Ser Ala Thr Met Trp Glu Phe His His His 265 260

Arg Asp Leu Ser Gly Ser Ser Gly Ser Tyr Val Glu Thr Arg Asn Ser 280

Ser Pro 290

<210> 152 <211> 504 <212> PRT

<213> Homo sapien

<400> 152

Arg Cys Asp Ser Cys Thr Leu Phe Ala Val Glu Ser Ile Leu Gln Gly

His Ser Pro Glu Glu Arg Met Lys Gly Gly Ser Arg Gln Tyr Leu Arg 25

Asp Ser Val Leu Ser Asp Thr His Pro Gln Val Thr Cys Val Ser Gln 35 45

Leu Thr Arg Lys Leu Ala Arg Met Ala Leu Cys Gly His Arg Val Thr

Ala Met Leu Gln Gly Thr Cys Gly Gly Leu Gly Thr Gln Pro Pro His

Ser Ser Gly Leu Cys Ser Gln Ala Pro Trp Pro Gly Ala Gly Gln Val

Leu Met Ser Ile Leu Leu Ala Leu Pro Gly Thr Cys Trp Thr Gly Gln

Ala Gly Asn Ala Gly Ala Glu Trp Gln Phe Pro Pro Tyr Ser Ala Gly

191

135

115

Trp Gin Pro Leu Ala Ser Arg Ser Ala Cys Gly Leu Glu Arg Ile Ala

120

Gly Ser Trp Val Arg Ala Cys Trp Leu Trp Val Ser Gly Ser His Leu 145 150 155

Ile Trp Val Trp Asp Ser Gln Cys Arg Pro Gln Thr Thr Ala Asp Phe 165 170 175

Arg Leu Ser Arg Gly Gly Thr Gly Ala His Gln Pro Gly His Gly Pro 180 185 190

Arg Arg Pro Pro Pro Ser Met Leu Leu Ala Gly Val Glu Ala Gly Thr 195 200 205

Gly Pro Pro His Thr Cys Pro Pro Ser His Val Val Gly Thr Asp Val 210 215 220

Val Leu Arg Ser Ser Ser Asn Tyr Lys Leu Thr Val Ser Arg Pro Trp 225 230 235 240

Lys Gln Gly Pro Gly Gln Val Arg Gln Glu Ala Ala Trp Leu Ala Gly 245 250 255

Thr Thr Pro Gln Thr Glu Thr Val Pro Ser Pro Gly Ser Leu Leu Ile 260 265 270

Trp Asp Glu Leu Gly Leu Pro Val Pro Ala Ser Val Leu Pro Leu Pro 275 280 285

Ser Ala Gly Leu Gly Ser Ser Leu Ile Cys Pro Arg Gly Cys Pro Ile 290 295 300

Pro Ser Arg Cys Pro Arg Ala Thr Tyr Pro Thr Gly Arg Arg Ala Ser 305 310 315 320

Thr Val Arg Gly Val Gln Leu Val Trp Arg Glu Glu Pro Leu Val Gly 325 330 335

Arg Gly Ser Arg Glu Val Arg Phe Ala Pro His Leu Gly Ala Leu Gly 340 345 350

His Ser Gly Gln Gly Ser Thr Trp Pro Val Pro Trp Ala Arg Arg Gly 355 360 365

Ile Lys Ser Ala Val Ala Lys Gln Lys Gln Tyr Cys Arg Gly Arg Val

Gly Arg Asp Cys Ala Met Ser Ser Glu Gln Glu Ala Gly His Gly Glu

Lys Gly Gly Arg Arg Thr Glu Pro Ala Val Pro Ala Glu Gly Pro Glu

Trp Ala Val Gly Thr Glu His Arg Pro Pro Pro Thr Arg Val Ser Pro 425

Val Thr Ser Gly Phe Pro Arg Ala Glu Ala Gly Met Gly Met Trp Arg

Leu Ala Pro Arg Arg Leu Arg Gln Val His Ala Lys Pro Ala Trp Leu 450 455 460

Ser Ser Gly Phe Leu Leu Thr Arg Trp Met Pro Val Pro Arg Pro Pro 465 470 475

Asp Arg Ala Leu Gln His Trp Arg Gly Leu Trp Trp Gly Pro Arg Cys

Arg Thr Gly Thr Ala Ser Ala His 500

<210> 153

<211> 292 <212> PRT <213> Homo sapien

<400> 153

Met Asn Pro Ile Val Val His Gly Gly Gly Ala Gly Pro Ile Ser

Lys Asp Arg Lys Glu Arg Val His Gln Gly Met Val Arg Ala Ala Thr 20 25

Val Gly Tyr Gly Ile Leu Arg Glu Gly Gly Ser Ala Val Asp Ala Val

Glu Gly Ala Val Ala Leu Glu Asp Asp Pro Glu Phe Asn Ala Gly

193

Cys Gly Ser Val Leu Asn Thr Asn Gly Glu Val Glu Met Asp Ala Ser 65 70 75 80

Ile Met Asp Gly Lys Asp Leu Ser Ala Gly Ala Val Ser Ala Val Gln
85 90 95

Cys Ile Ala Asn Pro Ile Lys Leu Ala Arg Leu Val Met Glu Lys Thr 100 105 110

Pro His Cys Phe Leu Thr Asp Gln Gly Ala Ala Gln Phe Ala Ala Ala 115 120 125

Met Gly Val Pro Glu Ile Pro Gly Glu Lys Leu Val Thr Glu Arg Asn 130 135 140

Lys Lys Arg Leu Glu Lys Glu Lys His Glu Lys Gly Ala Gln Lys Thr 145 150 155 160

Asp Cys Gln Lys Asn Leu Gly Thr Val Gly Ala Val Ala Leu Asp Cys 165 170 175

Lys Gly Asn Val Ala Tyr Ala Thr Ser Thr Gly Gly Ile Val Asn Lys 180 185 190

Met Val Gly Arg Val Gly Asp Ser Pro Cys Leu Gly Ala Gly Gly Tyr 195 200 205

Ala Asp Asn Asp Ile Gly Ala Val Ser Thr Thr Gly His Gly Glu Ser 210 215 220

Ile Leu Lys Val Asn Leu Ala Arg Leu Thr Pro Val Gln Cys Phe Glu 225 230 235 240

Ile Leu Pro Thr Ser Pro Ser Ser Pro Ala Gly Ser Gly Ala Val Gln
245 250 255

Cys Gly Gln His Gly Glu Glu Ser His Phe Leu Gly Gly Gln Tyr Ser 260 265 270

Ser Leu Ser Leu Ile Thr Leu Glu Met Leu Phe Leu Leu Tyr His Pro 275 280 285

Cys Ser Thr Phe 290

<210> 154

<211> 106

<212> PRT

<213> Homo sapien

<400> 154

Met Ile Thr Pro Leu His Ser Ser Leu Gly Asn Arg Ala Arg Pro Cys 10

Ile Lys Lys Lys Arg Lys Gly Lys Lys Glu Arg Lys Gln Gln His Asp

Pro Asp Met Thr Asp Val Gly Asp Pro Gln Pro Ala Asp Thr Val Gly

Trp Lys Val Gly Arg Glu Gly Pro Val Glu Val Glu Leu Phe Glu Ser 50 . 55

Asp Thr Ala Ala Val Glu Ala Val Val Gly Glu Ala Gln Val Thr Leu 70

Arg Thr Leu His Lys Asn Ile Arg Glu Lys Asn Gln Asn Pro Leu Arg

Lys Met Phe Phe Met Tyr Glu Arg Leu Lys

<210> 155 <211> 186 <212> PRT <213> Homo sapien

<400> 155

Val Gln His Gly Arg Arg Gly Leu Val Val Leu Arg Leu Pro Ile 10

Ala Leu Pro Leu His Gly Asp Val Ala Gly Ile Glu Ala Phe Asp Gln

Ala Gly Gln Ala Asp Leu Val Leu Gly Gln Leu Ile Pro Gly Trp Gly 40 45

Gln Gly Val His Leu Trp Phe Ser Gly Leu Pro Phe Gly Phe Gly Asp 50 55

Gly Phe Leu Asp Gly Gly Trp Glu Gly Phe Val Gly Asp Leu Ala Leu 70

195

Val Leu Leu Ala Ile Gln Pro Val Leu Val Gln Asp Gly Glu Asp Ala 85 90

Asp His Thr Val Arg Ala Val Val Leu Leu Leu Pro Arg Leu Cys Leu 100 105

Gly Ile Met His Leu His Ala Val His Val Pro Val Glu Leu Asp Leu 125

Arg Val Phe Val Ala His Val His His His Ala His Val His Cys Thr

Leu Tyr Asp Asp Ala Pro Arg Pro Tyr Leu Ala Phe Leu Arg Tyr Asp

Tyr Arg Asp Leu Leu Pro Ser Leu Arg Ser Trp Pro Arg Arg Tyr Leu 170

Cys Thr Glu Val Ser His His Pro Cys Arg

<210> 156

<211> 119 <212> PRT

<213> Homo sapien

<400> 156

Met Ala Phe Glu Val Leu Asn Leu Arg Ser Arg Asn His Ala Phe Leu

Leu Ile Cys Arg Ala Ser Leu Glu Leu Pro Pro Pro Ala Val Lys Gly

Ala Cys Arg Pro Gly Arg Leu Ser Pro Gly Ala Trp Leu Glu Val Ala

Gly Ala Gly Thr Gly Arg Ala Leu Ala Gly Val Val Gly Ser Ser

Ala Leu Leu Pro Trp Leu Pro Leu Leu Asn Pro Pro Leu Thr Phe Val 70

Gly Ser Cys Ser Val Arg Arg Glu Leu Gly Ala Leu Ala Pro Arg Leu

Leu Ser Ser Gln Glu Asp Leu Pro His Arg His Gln Trp Leu Leu 100 105 110

Trp Pro Arg Glu Val Gly Leu 115

<210> 157

<211> 199

<212> PRT <213> Homo sapien

<400> 157

Gln Thr Ser Cys Val Ala Leu Lys Lys Gly Ser Ser Thr Phe Pro Asp 10

His Lys Val Lys Val Thr Pro Leu Gly Asn Pro Asp Arg Pro Ala Ala

Gly Gln Thr Asp Arg Glu Arg Glu Ser Glu Gly Glu Gly Glu Val Ser

Asn Ala Pro Gly Thr Pro Gly Ser Leu Ala His Ile Ser Ser Pro Ala

Gln Ala Pro Ser Gly Lys Met Asn Pro Cys Ile Phe Leu Phe Ser Asn 70

Met Ala Phe Glu Val Leu Asn Leu Arg Ser Arg Asn His Ala Phe Leu

Leu Ile Cys Arg Ala Ser Leu Glu Leu Pro Pro Pro Ala Val Lys Gly 100

Ala Cys Arg Pro Gly Arg Leu Ser Pro Gly Ala Trp Leu Glu Val Ala 120

Gly Ala Gly Thr Gly Arg Ala Leu Ala Gly Val Val Val Gly Ser Ser 135 140

Ala Leu Leu Pro Trp Leu Pro Leu Leu Asn Pro Pro Leu Thr Phe Val 150

Gly Ser Cys Ser Val Arg Arg Glu Leu Gly Ala Leu Ala Pro Arg Leu 165

Leu Ser Ser Gln Glu Asp Leu Pro His Arg His Gln Trp Leu Leu Leu 185

197

Trp Pro Arg Glu Val Gly Leu 195

<210> 158 <211> 234 <212> PRT

<213> Homo sapien

<400> 158

Met Gly Trp Tyr Trp Trp Leu Val Thr Asp Val Glu Gly Gly His Leu

Leu Leu Pro Gln Ser Thr Val Val Asp Val Gly Glu Ala Phe Phe Glu 20

Leu Thr Gln Ser Asp Lys Ile Glu Lys Arg Ile Leu Lys Asn Glu Gln

Ile Leu Leu Lys Lys Ser Cys Glu Phe Phe Leu Lys His Asn Ser Lys

Val Lys His Lys Lys Lys His Tyr Lys Pro Ser Ser His Lys Leu Lys

Val Ile Ser Lys Ser Met Gly Thr Ser Thr Gly Ala Thr Ala Asn His 85 90

Gly Thr Ser Ala Val Ala Ile Thr Ser His Asp Tyr Leu Gly Gln Glu 100

Thr Leu Thr Glu Ile Gln Thr Ser Pro Glu Thr Ser Met Arg Glu Val

Lys Ala Asp Gly Ala Ser Thr Pro Arg Leu Arg Glu Gln Asp Cys Gly

Glu Pro Ala Ser Pro Ala Ala Ser Ile Ser Arg Leu Ser Gly Glu Gln

Val Asp Gly Lys Gly Gln Ala Gly Ser Val Ser Glu Ser Ala Arg Ser 165

Glu Gly Arg Ile Ser Pro Lys Ser Asp Ile Thr Asp Thr Gly Leu Ala 180

Gln Ser Asn Asn Leu Gln Val Pro Ser Ser Ser Glu Pro Ser Ser Leu 195 200 205

Lys Gly Ser Thr Ser Leu Leu Val His Pro Val Ser Gly Val Arg Lys

Glu Gln Gly Gly Cys His Ser Asp Thr 230

<210> 159

<211> 201 <212> PRT <213> Homo sapien

Pro Ser Gln Thr Lys Ile Glu Lys Arg Ile Leu Lys Asn Glu Gln Ile 10

Leu Leu Lys Lys Ser Cys Glu Phe Phe Leu Lys His Asn Ser Lys Val

Lys His Lys Lys Lys His Tyr Lys Pro Ser Ser His Lys Leu Lys Val

Ile Ser Lys Ser Met Gly Thr Ser Thr Gly Ala Thr Ala Asn His Gly

Thr Ser Ala Val Ala Ile Thr Ser His Asp Tyr Leu Gly Gln Glu Thr 75

Leu Thr Glu Ile Gln Thr Ser Pro Glu Thr Ser Met Arg Glu Val Lys

Ala Asp Gly Ala Ser Thr Pro Arg Leu Arg Glu Gln Asp Cys Gly Glu

Pro Ala Ser Pro Ala Ala Ser Ile Ser Arg Leu Ser Gly Glu Gln Val 120

Asp Gly Lys Gly Gln Ala Gly Ser Val Ser Glu Ser Ala Arg Ser Glu 130 135

Gly Arg Ile Ser Pro Lys Ser Asp Ile Thr Asp Thr Gly Leu Ala Gln 145

Ser Asn Asn Leu Gln Val Pro Ser Ser Ser Glu Pro Ser Ser Leu Lys 165 170

199

Gly Ser Thr Ser Leu Leu Val His Pro Val Ser Gly Val Arg Lys Glu 180 185 190

Gln Gly Gly Cys His Ser Asp Thr 195

<210> 160

<211> 159 <212> PRT

<213> Homo sapien

<400> 160

Met Asp Pro Asp Ala Leu Leu Trp Gly Met Ser Cys His Gly Leu Gly

Arg Thr Glu Ser Asn Arg Thr Leu Leu Leu Pro Trp Pro His Leu Val

Gln His Arg Arg Pro Lys Pro Gly Leu Ser Pro Leu Ser Pro Thr His

Leu Ser Leu Pro Arg Lys Lys Cys Asp Tyr Trp Ile Arg Thr Phe 55

Val Pro Gly Cys Gln Pro Gly Glu Phe Thr Leu Gly Asn Ile Lys Ser 70

Tyr Pro Gly Leu Thr Ser Tyr Leu Val Arg Val Val Ser Thr Asn Tyr

Asn Gln His Ala Met Val Phe Phe Lys Lys Val Ser Gln Asn Arg Glu

Tyr Phe Lys Ile Thr Leu Tyr Gly Arg Thr Lys Glu Leu Thr Ser Glu

Leu Lys Glu Asn Phe Ile Arg Phe Ser Lys Ser Leu Gly Leu Pro Glu

Asn His Ile Val Phe Pro Val Pro Ile Asp Gln Cys Ile Asp Gly 150

<210> 161 <211> 158 <212> PRT

<213> Homo sapien

<400> 161

200

Gly Ser Arg Arg Ser Leu Trp Gly Met Ser Cys His Gly Leu Gly Arg

Thr Glu Ser Asn Arg Thr Leu Leu Leu Pro Trp Pro His Leu Val Gln

His Arg Arg Pro Lys Pro Gly Leu Ser Pro Leu Ser Pro Thr His Leu

Ser Leu Pro Arg Lys Lys Cys Asp Tyr Trp Ile Arg Thr Phe Val

Pro Gly Cys Gln Pro Gly Glu Phe Thr Leu Gly Asn Ile Lys Ser Tyr

Pro Gly Leu Thr Ser Tyr Leu Val Arg Val Val Ser Thr Asn Tyr Asn

Gln His Ala Met Val Phe Phe Lys Lys Val Ser Gln Asn Arg Glu Tyr 100 105

Phe Lys Ile Thr Leu Tyr Gly Arg Thr Lys Glu Leu Thr Ser Glu Leu 115 120

Lys Glu Asn Phe Ile Arg Phe Ser Lys Ser Leu Gly Leu Pro Glu Asn 130 135

His Ile Val Phe Pro Val Pro Ile Asp Gln Cys Ile Asp Gly

<210> 162 <211> 229 <212> PRT

<213> Homo sapien

<400> 162

Met Trp Pro Pro Gly Arg Ser Ile Thr Val Lys Leu Arg Glu Lys Thr 10

Val Ser Arg Lys Leu Glu Met Asn Gly Pro Ser Ala Phe Gln Gly Leu 25

Ile Cys Gly Lys Tyr Asn Gly Met Cys Leu Gln Gly Pro Ala Gly Val 35

Pro Gly Arg Asp Gly Ser Pro Gly Ala Asn Gly Ile Pro Gly Thr Pro

201

50 55 60

Gly Ile Pro Gly Arg Asp Gly Phe Lys Gly Glu Lys Gly Glu Cys Leu 65 70 75 80

Arg Glu Ser Phe Glu Glu Ser Trp Thr Pro Asn Tyr Lys Gln Cys Ser 85 90 95

Trp Ser Ser Leu Asn Tyr Gly Ile Asp Leu Gly Lys Ile Ala Glu Cys
100 105 110

Thr Phe Thr Lys Met Arg Ser Asn Ser Ala Leu Arg Val Leu Phe Ser 115 120 125

Gly Ser Leu Arg Leu Lys Cys Arg Asn Ala Cys Cys Gln Arg Trp Tyr 130 135 140

Phe Thr Phe Asn Gly Ala Glu Cys Ser Gly Pro Leu Pro Ile Glu Ala 145 150 155 160

Ile Ile Tyr Leu Asp Gln Gly Ser Pro Glu Met Asn Ser Thr Ile Asn 165 170 175

Ile His Arg Thr Ser Ser Val Glu Gly Leu Cys Glu Gly Ile Gly Ala 180 185 190

Gly Leu Val Asp Val Ala Ile Trp Val Gly Thr Cys Ser Asp Tyr Pro 195 200 205

Lys Gly Asp Ala Ser Thr Gly Trp Asn Ser Val Ser Arg Ile Ile Ile 210 215 220

Glu Glu Leu Pro Lys 225

<210> 163

<211> 214

<212> PRT

<213> Homo sapien

<400> 163

Met Val Gly Arg Arg Ala Leu Ile Val Leu Ala His Ser Glu Arg Thr 1 5 10 15

Ser Phe Asn Tyr Ala Met Lys Glu Ala Ala Ala Ala Leu Lys Lys 20 25 30

Lys Gly Trp Glu Val Val Glu Ser Asp Leu Tyr Ala Met Asn Phe Asn 40

Pro Ile Ile Ser Arg Lys Asp Ile Thr Gly Lys Leu Lys Asp Pro Ala

Asn Phe Gln Tyr Pro Ala Glu Ser Val Leu Ala Tyr Lys Glu Gly His 70

Leu Ser Pro Asp Ile Val Ala Glu Leu Gly Val Pro Ala Ile Leu Lys

Gly Trp Phe Glu Arg Val Phe Ile Gly Glu Phe Ala Tyr Thr Tyr Ala

Ala Met Tyr Asp Lys Gly Pro Phe Arg Ser Lys Lys Ala Val Leu Ser 120

Ile Thr Thr Gly Gly Ser Gly Ser Met Tyr Ser Leu Gln Gly Ile His 130 135

Arg Asp Met Asn Val Ile Leu Trp Pro Ile Gln Ser Gly Ile Leu His 150 155

Phe Trp Gly Phe Gln Val Leu Glu Pro Ser Leu Thr Tyr Ser Ile Gly 165

Thr Leu Gln Gln Thr Pro Glu Leu Asn Pro Val Arg Met Gly Glu Thr 180

Pro Asp Asp Ile Cys Met Arg His His Asp Phe Ala Pro Arg Ala Leu 195 200

Cys Leu Asn Phe Ser Lys 210

<210> 164

<211> 172 <212> PRT <213> Homo sapien

<220>

<221> MISC_FEATURE <222> (112)..(112)

<223> x=any amino acid

<220>

PCT/US2004/011104

203

<221> MISC_FEATURE

<222> (144)..(144)

<223> x=any amino acid

<400> 164

WO 2004/092338

Leu Pro Pro Val Ala Pro Ala Gly Glu Ser Gly Glu Ala Pro Pro Ser

Ser Pro Arg Leu Pro Pro Phe Leu Glu Leu Gln Pro Gln His Pro Pro 20 25

Pro Arg His Pro Tyr Ala Tyr Ser Gly Arg Cys Gly Pro Ala Leu Val 40

Arg Leu Ser Thr Ser Tyr Ile Gly Ala Trp Thr Gly Tyr Ile Ser Arg

Glu Cys His Pro Trp His Tyr Thr Arg Asp Ser His Lys Val Ala Ala

Gly Ala Ala Gln Leu Thr Glu Ser Leu Val Pro Ala Arg Asp Arg Pro 90

Gly Asn His Glu Pro Ser Gln Leu Ser Ala Pro Arg Leu Leu Pro Xaa 100 105 110

Thr Met Val Gly Arg Arg Ala Leu Ile Val Leu Ala His Ser Glu Arg 120

Thr Ser Phe Asn Tyr Ala Met Lys Glu Ala Ala Ala Ala Leu Xaa

Lys Lys Gly Trp Glu Val Val Glu Ser Asp Leu Tyr Ala Met Asn Phe 155

Asn Pro Ile Ile Ser Arg Lys Asp Ile Thr Gly Asn 165

<210> 165

<211> 440 <212> PRT

<213> Homo sapien

<400> 165

Met Ala Leu Leu Val Leu Gly Leu Val Ser Cys Thr Phe Phe Leu Ala

Val Asn Gly Leu Tyr Ser Ser Ser Asp Asp Val Ile Glu Leu Thr Pro 20 25 30

Ser Asn Phe Asn Arg Glu Val Ile Gln Ser Asp Ser Leu Trp Leu Val 35 40 45

Glu Phe Tyr Ala Pro Trp Cys Gly His Cys Gln Arg Leu Thr Pro Glu 50 55 60

Trp Lys Lys Ala Ala Thr Ala Leu Lys Asp Val Val Lys Val Gly Ala 65 70 75 80

Val Asp Ala Asp Lys His His Ser Leu Gly Gly Gln Tyr Gly Val Gln 85 90 95

Gly Phe Pro Thr Ile Lys Ile Phe Gly Ser Asn Lys Asn Arg Pro Glu 100 105 110

Asp Tyr Gln Gly Gly Arg Thr Gly Glu Ala Ile Val Asp Ala Ala Leu 115 120 125

Ser Ala Leu Arg Gln Leu Val Lys Asp Arg Leu Gly Gly Arg Ser Gly 130 135 140

Gly Tyr Ser Ser Gly Lys Gln Gly Arg Ser Asp Ser Ser Ser Lys Lys 145 150 155 160

Asp Val Ile Glu Leu Thr Asp Asp Ser Phe Asp Lys Asn Val Leu Asp

Ser Glu Asp Val Trp Met Val Glu Phe Tyr Ala Pro Trp Cys Gly His 180 185 190

Cys Lys Asn Leu Glu Pro Glu Trp Ala Ala Ala Ser Glu Val Lys 195 200 205

Glu Gln Thr Lys Gly Lys Val Lys Leu Ala Ala Val Asp Ala Thr Val 210 215 220

Asn Gln Val Leu Ala Ser Arg Tyr Gly Ile Arg Gly Phe Pro Thr Ile 225 230 235 240

Lys Ile Phe Gln Lys Gly Glu Ser Pro Val Asp Tyr Asp Gly Gly Arg

205

Thr Arg Ser Asp Ile Val Ser Arg Ala Leu Asp Leu Phe Ser Asp Asn 265

Ala Pro Pro Pro Glu Leu Leu Glu Ile Ile Asn Glu Asp Ile Ala Lys 280

Arg Thr Cys Glu Glu His Gln Leu Cys Val Val Ala Val Leu Pro His 295

Ile Leu Asp Thr Gly Ala Ala Gly Arg Asn Ser Tyr Leu Glu Val Leu 305 315

Leu Lys Leu Ala Asp Lys Tyr Lys Lys Lys Met Trp Gly Trp Leu Trp

Thr Glu Ala Gly Ala Gln Ser Glu Leu Glu Thr Ala Leu Gly Ile Gly 345

Gly Phe Gly Tyr Pro Ala Met Ala Ala Ile Asn Ala Arg Lys Met Lys 360

Phe Ala Leu Leu Lys Gly Ser Phe Ser Glu Gln Gly Ile Asn Glu Phe 375

Leu Arg Glu Leu Ser Phe Gly Arg Gly Ser Thr Ala Pro Val Gly Gly

Gly Ala Phe Pro Thr Ile Val Glu Arg Glu Pro Trp Asp Gly Arg Asp 410

Gly Glu Leu Pro Val Glu Asp Asp Ile Asp Leu Ser Asp Val Glu Leu 425 420

Asp Asp Leu Gly Lys Asp Glu Leu 435 440

<210> 166

<211> 461 <212> PRT

<213> Homo sapien

<400> 166

Leu Ala Pro Gly Phe Tyr Cys Ala Ser Arg Phe Tyr Thr Gly Cys Ser

Thr Pro Gly Ser Ala Trp Leu Ser Trp Val Leu Gly Leu Val Ser Cys

Thr Phe Phe Leu Ala Val Asn Gly Leu Tyr Ser Ser Asp Asp Val 35 40 45

Ile Glu Leu Thr Pro Ser Asn Phe Asn Arg Glu Val Ile Gln Ser Asp 50 55 60

Ser Leu Trp Leu Val Glu Phe Tyr Ala Pro Trp Cys Gly His Cys Gln 65 70 75 80

Arg Leu Thr Pro Glu Trp Lys Lys Ala Ala Thr Ala Leu Lys Asp Val 85 90 95

Val Lys Val Gly Ala Val Asp Ala Asp Lys His His Ser Leu Gly Gly
100 105 110

Gln Tyr Gly Val Gln Gly Phe Pro Thr Ile Lys Ile Phe Gly Ser Asn 115 120 125

Lys Asn Arg Pro Glu Asp Tyr Gln Gly Gly Arg Thr Gly Glu Ala Ile 130 135 140

Val Asp Ala Ala Leu Ser Ala Leu Arg Gln Leu Val Lys Asp Arg Leu
145 150 155 160

Gly Gly Arg Ser Gly Gly Tyr Ser Ser Gly Lys Gln Gly Arg Ser Asp

Ser Ser Ser Lys Lys Asp Val Ile Glu Leu Thr Asp Asp Ser Phe Asp 180 185 190

Lys Asn Val Leu Asp Ser Glu Asp Val Trp Met Val Glu Phe Tyr Ala 195 200 205

Pro Trp Cys Gly His Cys Lys Asn Leu Glu Pro Glu Trp Ala Ala Ala 210 215 220

Ala Ser Glu Val Lys Glu Gln Thr Lys Gly Lys Val Lys Leu Ala Ala 225 230 235 240

Val Asp Ala Thr Val Asn Gln Val Leu Ala Ser Arg Tyr Gly Ile Arg 245 250 255

Gly Phe Pro Thr Ile Lys Ile Phe Gln Lys Gly Glu Ser Pro Val Asp 260 265 270

Tyr Asp Gly Gly Arg Thr Arg Ser Asp Ile Val Ser Arg Ala Leu Asp 280

Leu Phe Ser Asp Asn Ala Pro Pro Pro Glu Leu Leu Glu Ile Ile Asn 295

Glu Asp Ile Ala Lys Arg Thr Cys Glu Glu His Gln Leu Cys Val Val 310

Ala Val Leu Pro His Ile Leu Asp Thr Gly Ala Ala Gly Arg Asn Ser 325

Tyr Leu Glu Val Leu Leu Lys Leu Ala Asp Lys Tyr Lys Lys Met

Trp Gly Trp Leu Trp Thr Glu Ala Gly Ala Gln Ser Glu Leu Glu Thr

Ala Leu Gly Ile Gly Gly Phe Gly Tyr Pro Ala Met Ala Ala Ile Asn

Ala Arg Lys Met Lys Phe Ala Leu Leu Lys Gly Ser Phe Ser Glu Gln 385 395

Gly Ile Asn Glu Phe Leu Arg Glu Leu Ser Phe Gly Arg Gly Ser Thr 405 410

Ala Pro Val Gly Gly Ala Phe Pro Thr Ile Val Glu Arg Glu Pro 420

Trp Asp Gly Arg Asp Gly Glu Leu Pro Val Glu Asp Asp Ile Asp Leu 435

Ser Asp Val Glu Leu Asp Asp Leu Gly Lys Asp Glu Leu 450 455

<210> 167 <211> 97 <212> PRT

<213> Homo sapien

<400> 167

Glu Gly Cys Ile Lys Ile Leu Ser Phe His Ile Gly Val Ser Phe Glu 5 10

Asp Val Ala Val Pro Leu Ser Gln Glu Glu Trp Asp Cys Leu Ile Pro

208

30 20 25

Ala Gln Arg Gly Leu Tyr Lys Asp Val Met Met Gly Thr Tyr Gly Asn 35 40

Leu Leu Ser Leu Val Gly Glu Trp Leu Ser Lys Leu Trp Tyr Ile His

Thr Met Gly Tyr Asp Ser Thr Ile Lys Arg Asn Cys Pro Asp Phe Thr 70 75

Thr Met Gln Tyr Met His Val Arg Asn Leu His Leu Tyr Pro Leu Asn 85 90

Ile

<210> 168

<211> 81

<212> PRT

<213> Homo sapien

<400> 168

Ala Ala Pro Thr Ser Glu Trp Cys Ser Thr Tyr Glu Val Arg Leu

Thr Gln Thr Val Ala His Leu Lys Gln Gln Val Ser Gly Leu Glu Gly

Val Gln Asp Asp Leu Phe Trp Leu Thr Phe Glu Gly Lys Pro Leu Glu 40 45

Asp Gln Leu Pro Leu Gly Glu Tyr Gly Leu Lys Pro Leu Ser Thr Val 50 55

Phe Met Asn Leu Arg Leu Arg Gly Gly Gly Thr Glu Pro Gly Gly Arg

Ser

<210> 169 <211> 102

<212> PRT

<213> Homo sapien

<400> 169

209

Gly Arg Ser Asn Ile Arg Met Val Gln His Leu Arg Gly Ala Ala Asp 1 5 10 15

Ala Asp Arg Gly Pro Pro Glu Ala Ala Ser Glu Arg Ala Gly Gly Cys
20 25 30

Ala Gly Arg Pro Val Leu Ala Asp Leu Arg Gly Glu Ala Pro Gly Gly 35 40

Pro Ala Pro Ala Gly Gly Val Arg Pro Gln Ala Pro Glu His Arg Val 50 60

His Glu Ser Ala Pro Ala Gly Arg Arg His Arg Ala Trp Arg Ala Glu 65 70 75 80

Leu Arg Ala Ser Thr Ser Ile Arg Ala Gly Ser Arg Ala Gly Asn Lys 85 90 95

Gly Cys Cys Lys Glu Lys 100

<210> 170

<211> 709

<212> PRT

<213> Homo sapien

<400> 170

Met Glu Lys Lys Lys Ile Val Leu Glu Glu Glu Val Lys Thr Leu Asn
1 5 10 15

Asp Ser Leu Lys Lys Val Glu Asn Lys Val Ser Ala Ile Val Asp Glu 20 25 30

Lys Glu Asn Val Ile Lys Glu Val Glu Gly Lys Arg Ala Leu Leu Glu 35 40

Ile Lys Glu Arg Glu His Asn Gln Leu Val Lys Leu Leu Glu Leu Ala 50 60

Arg Glu Asn Glu Ala Thr Ser Leu Thr Glu Arg Gly Ile Leu Asp Leu 65 70 75 80

Asn Leu Arg Asn Ser Leu Ile Asp Lys Gln Asn Tyr His Asp Glu Leu 85 90

Ser Arg Lys Gln Arg Glu Lys Glu Arg Asp Phe Arg Asn Leu Arg Lys 100 105 110

Met Glu Leu Leu Lys Val Ser Trp Asp Ala Leu Arg Gln Thr Gln 115 120 125

Ala Leu His Gln Arg Leu Leu Glu Met Glu Ala Ile Pro Lys Asp 130 135 140

Asp Ser Thr Leu Ser Glu Arg Arg Glu Leu His Lys Glu Val Glu 145 150 155 160

Val Ala Lys Arg Asn Leu Ala Gln Gln Lys Ile Ile Ser Glu Met Glu 165 170 175

Ser Lys Leu Val Glu Gln Gln Leu Ala Glu Glu Asn Lys Leu Leu Lys 180 185 190

Glu Gln Glu Asn Met Lys Glu Leu Val Val Asn Leu Leu Arg Met Thr 195 200 205

Gln Ile Lys Ile Asp Glu Lys Glu Gln Lys Ser Lys Asp Phe Leu Lys 210 215 220

Ala Gln Gln Lys Tyr Thr Asn Ile Val Lys Glu Met Lys Ala Lys Asp 225 230 235 240

Leu Glu Ile Arg Ile His Lys Lys Lys Cys Glu Ile Tyr Arg Arg 245 250 255

Leu Arg Glu Phe Ala Lys Leu Tyr Asp Thr Ile Arg Asn Glu Arg Asn 260 265 270

Lys Phe Val Asn Leu Leu His Lys Ala His Gln Lys Val Asn Glu Ile 275 280 285

Lys Glu Arg His Lys Met Ser Leu Asn Glu Leu Glu Ile Leu Arg Asn 290 295 300

Ser Ala Val Ser Gln Glu Arg Lys Leu Gln Asn Ser Met Leu Lys His 305 310 315 320

Ala Asn Asn Val Thr Ile Arg Glu Ser Met Gln Asn Asp Val Arg Lys 325 330 335

Ile Val Ser Lys Leu Gl<br/>n Glu Met Lys Glu Lys Lys Glu Ala Gl<br/>n Leu 340 345 350

Asn Asn Ile Asp Arg Leu Ala Asn Thr Ile Thr Met Ile Glu Glu Glu 355 360 365

Met Val Gln Leu Arg Lys Arg Tyr Glu Lys Ala Val Gln His Glu Met 370 375 380

Lys Ala Ser Ala Ser Glu Phe Asp His Ser Gly Val Gln Leu Ile Glu 385 390 395 400

Arg Glu Glu Ile Cys Ile Phe Tyr Glu Lys Ile Asn Ile Glu Glu 405 410 415

Lys Met Lys Leu Asn Gly Glu Ile Glu Ile His Leu Leu Glu Glu Lys 420 425 430

Ile Gln Phe Leu Lys Met Lys Ile Ala Glu Lys Gln Arg Gln Ile Cys 435 440 445

Val Thr Gln Lys Leu Leu Pro Ala Lys Arg Ser Leu Asp Ala Asp Leu 450 455 460

Ala Val Leu Gln Ile Gln Phe Ser Gln Cys Thr Asp Arg Ile Lys Asp 465 470 475 480

Leu Glu Lys Gln Phe Val Lys Pro Asp Gly Glu Asn Arg Ala Arg Phe
485 490 495

Leu Pro Gly Lys Asp Leu Thr Glu Lys Glu Met Ile Gln Lys Leu Asp
500 510

Lys Leu Glu Leu Gln Leu Ala Lys Lys Glu Glu Lys Leu Leu Glu Lys 515 520 525

Asp Phe Ile Tyr Glu Gln Val Ser Arg Leu Thr Asp Arg Leu Cys Ser 530 540

Lys Thr Gln Gly Cys Lys Gln Asp Thr Leu Leu Leu Ala Lys Lys Met 545 550 555

Asn Gly Tyr Gln Arg Arg Ile Lys Asn Ala Thr Glu Lys Met Met Ala 565 570 575

Leu Val Ala Glu Leu Ser Met Lys Gln Ala Leu Thr Ile Glu Leu Gln 580 585 590

212

Lys Glu Val Arg Glu Lys Glu Asp Phe Ile Phe Thr Cys Asn Ser Arg 600

Ile Glu Lys Gly Leu Pro Leu Asn Lys Glu Ile Glu Lys Glu Trp Leu

Lys Val Leu Arg Asp Glu Glu Met His Ala Leu Ala Ile Ala Glu Lys 630 635

Ser Gln Glu Phe Leu Glu Ala Asp Asn Arg Gln Leu Pro Asn Gly Val 650

Tyr Thr Thr Ala Glu Gln Arg Pro Asn Ala Tyr Ile Pro Glu Ala Asp 665

Ala Thr Leu Pro Leu Pro Lys Pro Tyr Gly Ala Leu Ala Pro Phe Lys 680

Pro Ser Glu Pro Gly Ala Asn Met Arg His Ile Arg Lys Pro Val Ile 695 700 690

Lys Pro Val Glu Ile 705

<210> 171 <211> 413

<212> PRT

<213> Homo sapien

<400> 171

Ser Gln His Gly Leu Lys Ile Arg Gln Val Cys Val Cys Val

Cys Val Cys Ile Pro Tyr Arg Glu Met Glu Lys Lys Lys Ile Val Leu 25

Glu Glu Val Lys Thr Leu Asn Asp Ser Leu Lys Lys Val Glu Asn 35 40 45

Lys Val Ser Ala Ile Val Asp Glu Lys Glu Asn Val Ile Lys Glu Val

Glu Gly Lys Arg Ala Leu Leu Glu Ile Lys Glu Arg Glu His Asn Gln 70

Leu Val Lys Leu Leu Glu Leu Ala Arg Glu Asn Glu Ala Thr Ser Leu 85 90

Thr Glu Arg Gly Ile Leu Asp Leu Asn Leu Arg Asn Ser Leu Ile Asp 100 105 110

Lys Gln Asn Tyr His Asp Glu Leu Ser Arg Lys Gln Arg Glu Lys Glu 115 120 125

Arg Asp Phe Arg Asn Leu Arg Lys Met Glu Leu Leu Lys Val Ser 130 135 140

Trp Asp Ala Leu Arg Gln Thr Gln Ala Leu His Gln Arg Leu Leu 145 150 155 160

Glu Met Glu Ala Ile Pro Lys Asp Asp Ser Thr Leu Ser Glu Arg Arg 165 170 175

Arg Glu Leu His Lys Glu Val Glu Val Ala Lys Arg Asn Leu Ala Gln 180 185 190

Gln Lys Ile Ile Ser Glu Met Glu Ser Lys Leu Val Glu Gln Gln Leu 195 200 205

Ala Glu Glu Asn Lys Leu Leu Lys Glu Gln Glu Asn Met Lys Glu Leu 210 215 220

Val Val Asn Leu Leu Arg Met Thr Gln Ile Lys Ile Asp Glu Lys Glu 225 230 235 240

Gln Lys Ser Lys Asp Phe Leu Lys Ala Gln Gln Lys Tyr Thr Asn Ile 245 250 255

Val Lys Glu Met Lys Ala Lys Asp Leu Glu Ile Arg Ile His Lys Lys 260 265 270

Lys Lys Cys Glu Ile Tyr Arg Arg Leu Arg Glu Phe Ala Lys Leu Tyr 275 280 285

Asp Thr Ile Arg Asn Glu Arg Asn Lys Phe Val Asn Leu Leu His Lys 290 295 300

Ala His Gln Lys Val Asn Glu Ile Lys Glu Arg His Lys Met Ser Leu 305 310 315 320

Asn Glu Leu Glu Ile Leu Arg Asn Ser Ala Val Ser Gln Glu Arg Lys

214

Leu Gln Asn Ser Met Leu Lys His Ala Asn Asn Val Thr Ile Arg Glu 345

Ser Met Gln Asn Asp Val Arg Lys Ile Val Ser Lys Leu Gln Glu Met 360

Lys Glu Lys Lys Glu Ala Gln Leu Asn Asn Ile Asp Arg Leu Ala Asn 375 380

Thr Ile Thr Met Ile Glu Glu Met Val Gln Leu Arg Lys Arg Tyr 385

Glu Lys Ala Val Gln His Arg Asn Glu Ser Leu Cys Leu 405 410

<210> 172 <211> 128 <212> PRT

<213> Homo sapien

<400> 172

Met Ala Met Gly Leu Met His Ala Arg Ala Ala Gln Cys Asp Gly Cys

Arg Gly Glu Ala Ala Pro Gly Arg Ser Asp Val Met Val Ser Ser Ser 25

Leu Asn Pro Gly Val Ala Arg Gly His Arg Asp Arg Gly Gln Ala Ser

Arg Arg Trp Leu Gln Glu Gly Gly Gln Glu Cys Glu Cys Lys Asp Trp 55 60 50

Phe Leu Arg Ala Pro Arg Arg Lys Phe Met Thr Val Ser Gly Leu Pro 70

Lys Lys Gln Cys Pro Cys Asp His Phe Lys Gly Asn Val Lys Lys Thr

Arg His Gln Arg His His Arg Lys Pro Asn Lys His Ser Arg Ala Cys

Gln Gln Phe Leu Lys Gln Cys Gln Leu Arg Ser Phe Ala Leu Pro Leu 120

<210> 173

PCT/US2004/011104

<211> 94

WO 2004/092338

<212> PRT

<213> Homo sapien

<400> 173

Ile Arg Val Ala Arg Gly His Arg Asp Arg Gly Gln Ala Ser Arg Arg

Trp Leu Gln Glu Gly Gln Glu Cys Glu Cys Lys Asp Trp Phe Leu

Arg Ala Pro Arg Arg Lys Phe Met Thr Val Ser Gly Leu Pro Lys Lys

Gln Cys Pro Cys Asp His Phe Lys Gly Asn Val Lys Lys Thr Arg His

Gln Arg His His Arg Lys Pro Asn Lys His Ser Arg Ala Cys Gln Gln 70

Phe Leu Lys Gln Cys Gln Leu Arg Ser Phe Ala Leu Pro Leu

<210> 174

<211> 118 <212> PRT <213> Homo sapien

<400> 174

Met Ala Met Gly Leu Met His Ala Arg Ala Ala Gln Cys Asp Gly Cys

Arg Gly Glu Ala Ala Pro Gly Arg Ser Gly Val Ala Arg Gly His Arg

Asp Arg Gly Gln Ala Ser Arg Arg Trp Leu Gln Glu Gly Gln Glu 40

Cys Glu Cys Lys Asp Trp Phe Leu Arg Ala Pro Arg Arg Lys Phe Met

Thr Val Ser Gly Leu Pro Lys Lys Gln Cys Pro Cys Asp His Phe Lys 70

Gly Asn Val Lys Lys Thr Arg His Gln Arg His His Arg Lys Pro Asn 85

216

Lys His Ser Arg Ala Cys Gln Gln Phe Leu Lys Gln Cys Gln Leu Arg 105

Ser Phe Ala Leu Pro Leu 115

<210> 175 <211> 100

<212> PRT

<213> Homo sapien

<400> 175

Trp Met Arg Arg Ala Gly Arg Val Ala Arg Gly His Arg Asp Arg

Gly Gln Ala Ser Arg Arg Trp Leu Gln Glu Gly Gly Gln Glu Cys Glu

Cys Lys Asp Trp Phe Leu Arg Ala Pro Arg Arg Lys Phe Met Thr Val

Ser Gly Leu Pro Lys Lys Gln Cys Pro Cys Asp His Phe Lys Gly Asn

Val Lys Lys Thr Arg His Gln Arg His His Arg Lys Pro Asn Lys His 65 70 75

Ser Arg Ala Cys Gln Gln Phe Leu Lys Gln Cys Gln Leu Arg Ser Phe 90

Ala Leu Pro Leu

<210> 176

<211> 30 <212> PRT <213> Homo sapien

<400> 176

Asn Ala Cys Arg Ala Ala Gln Cys Asp Gly Ser Ala Ala Arg Ala Gly 10

Leu Gln Glu Gly Gly Lys Asn Val Ser Ala Lys Ile Gly Ser 25

<210> 177
<211> 84
<212> PRT

217

<213> Homo sapien

<400> 177

Trp Ile Gly Arg Pro Gly Arg Ser Pro Gly Arg Arg Gln Glu Cys Glu

10 15

Cys Lys Asp Trp Phe Leu Arg Ala Pro Arg Arg Lys Phe Met Thr Val

Ser Gly Leu Pro Lys Lys Gln Cys Pro Cys Asp His Phe Lys Gly Asn 35 40 45

Val Lys Lys Thr Arg His Gln Arg His His Arg Lys Pro Asn Lys His 50 55 60

Ser Arg Ala Cys Gln Gln Phe Leu Lys Gln Cys Gln Leu Arg Ser Phe 70 75 80

Ala Leu Pro Leu

<210> 178

<211> 145

<212> PRT

<213> Homo sapien

<400> 178

Met Gln Glu Arg Thr Gly Ala Ala Thr Ala Arg Arg Glu Ser Leu Pro 1 5 10 15

Gln Ala Asn Asn Pro Glu Gln Leu Cys Lys Gln Arg Cys Ile Asn Glu 20 25 30

Ala Ser Trp Thr Met Lys Arg Val Leu Ser Cys Val Pro Glu Pro Thr 35 40 45

Val Val Met Ala Ala Arg Ala Leu Cys Met Leu Gly Leu Val Leu Ala 50 55 60

Leu Leu Ser Ser Ser Ser Ala Glu Glu Tyr Val Gly Leu Ser Gln Gln 65 70 75 80

Gly Leu Trp Gln Leu Thr Gly Leu Cys Leu Gly Gln Pro Ala Asn Gln 85 90 95

Cys Ala Val Pro Ala Lys Asp Arg Val Asp Cys Gly Tyr Pro His Val

218

Thr Pro Lys Glu Cys Asn Asn Arg Gly Cys Cys Phe Asp Ser Arg Ile

Pro Gly Val Pro Trp Cys Phe Lys Pro Leu Gln Glu Ala Glu Cys Thr 135

Phe 145

<210> 179

<211> 91 <212> PRT <213> Homo sapien

<400> 179

Met Gln Glu Arg Thr Gly Ala Ala Thr Ala Arg Arg Glu Ser Leu Pro 10

Gln Ala Asn Asn Pro Glu Gln Leu Cys Lys Gln Arg Cys Ile Asn Glu

Ala Ser Trp Thr Met Lys Arg Val Leu Ser Cys Val Pro Glu Pro Thr 40

Val Val Met Ala Ala Arg Ala Leu Cys Met Leu Gly Leu Val Leu Ala 60 55

Leu Leu Ser Ser Ser Ser Ala Glu Glu Tyr Val Gly Leu Trp Lys Val

His Leu Pro Lys Gly Glu Gly Phe Ser Ser Gly 85

<210> 180 <211> 1217

<212> PRT

<213> Homo sapien

<400> 180

Met Gly Leu Ser Phe Arg Leu His Ser Leu Leu Thr Thr Lys Gln His

Ala Gln Ser Arg Gly Glu Lys Glu Gly Glu Ser Cys Gly Pro His Glu 25

His Leu Asp Leu Ala Trp Thr Thr His Ser Ser Leu Ala Leu Ala Leu

35 40

Phe Leu Leu Arg Val Trp Trp Trp Asp Ser Lys Thr Val Lys Ile
50 60

Ala Phe Ser Pro Pro Trp Gly Ile Trp Gly Leu Phe Lys Arg Pro Ala 65 70 75 80

Pro Leu Glu Gly Arg Arg Ala Pro Arg Glu Ala Glu Gly Asp Arg 85 90 95

Arg Gly Lys Gly Pro Leu Ile Ile Ala His Pro Thr Glu Ile Leu Lys 100 105 110

Gly Gly Val Leu Ile Gln Arg Asn Pro Gln Leu Cys Tyr Gln Asp Thr 115 120 125

Ile Leu Trp Lys Asp Ile Phe His Lys Asn Asn Gln Leu Ala Leu Thr 130 135 140

Leu Ile Asp Thr Asn Arg Ser Arg Ala Cys His Pro Cys Ser Pro Met 145 150 155

Cys Lys Gly Ser Arg Cys Trp Gly Glu Ser Ser Glu Asp Cys Gln Ser 165 170 175

Leu Thr Arg Thr Val Cys Ala Gly Gly Cys Ala Arg Cys Lys Gly Pro 180 185 190

Leu Pro Thr Asp Cys Cys His Glu Gln Cys Ala Ala Gly Cys Thr Gly 195 200 205

Pro Lys His Ser Asp Cys Leu Ala Cys Leu His Phe Asn His Ser Gly 210 215 220

Ile Cys Glu Leu His Cys Pro Ala Leu Val Thr Tyr Asn Thr Asp Thr 225 230 235 240

Phe Glu Ser Met Pro Asn Pro Glu Gly Arg Tyr Thr Phe Gly Ala Ser 245 250 255

Cys Val Thr Ala Cys Pro Tyr Asn Tyr Leu Ser Thr Asp Val Gly Ser 260 270

Cys Thr Leu Val Cys Pro Leu His Asn Gln Glu Val Thr Ala Glu Asp 275 280 285 WO 2004/092338

Gly Thr Gln Arg Cys Glu Lys Cys Ser Lys Pro Cys Ala Arg Val Cys 290 295 300

Tyr Gly Leu Gly Met Glu His Leu Arg Glu Val Arg Ala Val Thr Ser 315 310 315

Ala Asn Ile Gln Glu Phe Ala Gly Cys Lys Lys Ile Phe Gly Ser Leu 325 330 335

Ala Phe Leu Pro Glu Ser Phe Asp Gly Asp Pro Ala Ser Asn Thr Ala 340 345 350

Pro Leu Gln Pro Glu Gln Leu Gln Val Phe Glu Thr Leu Glu Glu Ile 355 360 365

Thr Gly Tyr Leu Tyr Ile Ser Ala Trp Pro Asp Ser Leu Pro Asp Leu 370 380

Ser Val Phe Gln Asn Leu Gln Val Ile Arg Gly Arg Ile Leu His Asn 385 390 395 400

Gly Ala Tyr Ser Leu Thr Leu Gln Gly Leu Gly Ile Ser Trp Leu Gly 405 410 415

Leu Arg Ser Leu Arg Glu Leu Gly Ser Gly Leu Ala Leu Ile His His 420 425 430

Asn Thr His Leu Cys Phe Val His Thr Val Pro Trp Asp Gln Leu Phe
435 440 445

Arg Asn Pro His Gln Ala Leu Leu His Thr Ala Asn Arg Pro Glu Asp 450 455 460

Glu Cys Val Gly Glu Gly Leu Ala Cys His Gln Leu Cys Ala Arg Gly 465 470 475 480

His Cys Trp Gly Pro Gly Pro Thr Gln Cys Val Asn Cys Ser Gln Phe 485 490 495

Leu Arg Gly Gln Glu Cys Val Glu Glu Cys Arg Val Leu Gln Gly Leu 500 505 510

Pro Arg Glu Tyr Val Asn Ala Arg His Cys Leu Pro Cys His Pro Glu 515 520 525

Cys Gln Pro Gln Asn Gly Ser Val Thr Cys Phe Gly Pro Glu Ala Asp 530 535 540

Gln Cys Val Ala Cys Ala His Tyr Lys Asp Pro Pro Phe Cys Val Ala 545 550 555 560

Arg Cys Pro Ser Gly Val Lys Pro Asp Leu Ser Tyr Met Pro Ile Trp 565 570 575

Lys Phe Pro Asp Glu Glu Gly Ala Cys Gln Pro Cys Pro Ile Asn Cys 580 585 590

Thr His Ser Cys Val Asp Leu Asp Asp Lys Gly Cys Pro Ala Glu Gln 595 600 605

Arg Ala Ser Pro Leu Thr Ser Ile Ile Ser Ala Val Val Gly Ile Leu 610 615 620

Leu Val Val Val Leu Gly Val Val Phe Gly Ile Leu Ile Lys Arg Arg 625 630 635 640

Gln Gln Lys Ile Arg Lys Tyr Thr Met Arg Arg Leu Leu Gln Glu Thr 645 650 655

Glu Leu Val Glu Pro Leu Thr Pro Ser Gly Ala Met Pro Asn Gln Ala 660 665 670

Gln Met Arg Ile Leu Lys Glu Thr Glu Leu Arg Lys Val Leu 675 680 685

Gly Ser Gly Ala Phe Gly Thr Val Tyr Lys Gly Ile Trp Ile Pro Asp 690 695 700

Gly Glu Asn Val Lys Ile Pro Val Ala Ile Lys Val Leu Arg Glu Asn 705 710 715 720

Thr Ser Pro Lys Ala Asn Lys Glu Ile Leu Asp Glu Ala Tyr Val Met 725 730 735

Ala Gly Val Gly Ser Pro Tyr Val Ser Arg Leu Leu Gly Ile Cys Leu 740 745 750

Thr Ser Thr Val Gln Leu Val Thr Gln Leu Met Pro Tyr Gly Cys Leu 755 760 765

222

Leu Asp His Val Arg Glu Asn Arg Gly Arg Leu Gly Ser Gln Asp Leu 770 780

Leu Asn Trp Cys Met Gln Ile Ala Lys Gly Met Ser Tyr Leu Glu Asp 785 790 795 800

Val Arg Leu Val His Arg Asp Leu Ala Ala Arg Asn Val Leu Val Lys 805 810 815

Ser Pro Asn His Val Lys Ile Thr Asp Phe Gly Leu Ala Arg Leu Leu 820 825 830

Asp Ile Asp Glu Thr Glu Tyr His Ala Asp Gly Gly Lys Val Pro Ile 835 840 845

Lys Trp Met Ala Leu Glu Ser Ile Leu Arg Arg Phe Thr His Gln 850 855 860

Ser Asp Val Trp Ser Tyr Gly Val Thr Val Trp Glu Leu Met Thr Phe 865 870 875 880

Gly Ala Lys Pro Tyr Asp Gly Ile Pro Ala Arg Glu Ile Pro Asp Leu 885 890 895

Leu Glu Lys Gly Glu Arg Leu Pro Gln Pro Pro Ile Cys Thr Ile Asp 900 905 910

Val Tyr Met Ile Met Val Lys Cys Trp Met Ile Asp Ser Glu Cys Arg 915 920 925

Pro Arg Phe Arg Glu Leu Val Ser Glu Phe Ser Arg Met Ala Arg Asp 930 935 940

Pro Gln Arg Phe Val Val Ile Gln Asn Glu Asp Leu Gly Pro Ala Ser 945 950 955 960

Pro Leu Asp Ser Thr Phe Tyr Arg Ser Leu Leu Glu Asp Asp Met 965 970 975

Gly Asp Leu Val Asp Ala Glu Glu Tyr Leu Val Pro Gln Gln Gly Phe 980 985 990

Phe Cys Pro Asp Pro Ala Pro Gly Ala Gly Gly Met Val His His Arg 995 1000 1005

His Arg Ser Ser Ser Thr Arg Ser Gly Gly Asp Leu Thr Leu

Gly Leu Glu Pro Ser Glu Glu Glu Ala Pro Arg Ser Pro Leu Ala 

Pro Ser Glu Gly Ala Gly Ser Asp Val Phe Asp Gly Asp Leu Gly 

Met Gly Ala Ala Lys Gly Leu Gln Ser Leu Pro Thr His Asp Pro 

Ser Pro Leu Gln Arg Tyr Ser Glu Asp Pro Thr Val Pro Leu Pro 

Ser Glu Thr Asp Gly Tyr Val Ala Pro Leu Thr Cys Ser Pro Gln 

Pro Glu Tyr Val Asn Gln Pro Asp Val Arg Pro Gln Pro Pro Ser

Pro Arg Glu Gly Pro Leu Pro Ala Ala Arg Pro Ala Gly Ala Thr 

Leu Glu Arg Ala Lys Thr Leu Ser Pro Gly Lys Asn Gly Val Val 

Lys Asp Val Phe Ala Phe Gly Gly Ala Val Glu Asn Pro Glu Tyr 

Leu Thr Pro Gln Gly Gly Ala Ala Pro Gln Pro His Pro Pro Pro 

Ala Phe Ser Pro Ala Phe Asp Asn Leu Tyr Tyr Trp Asp Gln Asp

Pro Pro Glu Arg Gly Ala Pro Pro Ser Thr Phe Lys Gly Thr Pro 

Thr Ala Glu Asn Pro Glu Tyr Leu Gly Leu Asp Val Pro Val 

<210> 181

<211> 1375 <212> PRT <213> Homo sapien

<400> 181

224

Met Glu Leu Ala Ala Leu Cys Arg Trp Gly Leu Leu Leu Ala Leu Leu 1 5 10 15

Pro Pro Gly Ala Ala Ser Thr Gln Val Cys Thr Gly Thr Asp Met Lys 20 25 30

Leu Arg Leu Pro Ala Ser Pro Glu Thr His Leu Asp Met Leu Arg His 35 40 45

Leu Tyr Gln Gly Cys Gln Val Val Gln Gly Asn Leu Glu Leu Thr Tyr 50 55 60

Leu Pro Thr Asn Ala Ser Leu Ser Phe Leu Gln Asp Ile Gln Glu Val 65 70 75 80

Gln Gly Tyr Val Leu Ile Ala His Asn Gln Val Arg Gln Val Pro Leu 85 90 95

Gln Arg Leu Arg Ile Val Arg Gly Thr Gln Leu Phe Glu Asp Asn Tyr 100 105 110

Ala Leu Ala Val Leu Asp Asn Gly Asp Pro Leu Asn Asn Thr Thr Pro 115 120 125

Val Thr Gly Ala Ser Pro Gly Gly Leu Arg Glu Leu Gln Leu Arg Ser 130 135 140

Leu Thr Glu Ile Leu Lys Gly Gly Val Leu Ile Gln Arg Asn Pro Gln 145 150 155 160

Leu Cys Tyr Gln Asp Thr Ile Leu Trp Lys Asp Ile Phe His Lys Asn 165 170 175

Asn Gln Leu Ala Leu Thr Leu Ile Asp Thr Asn Arg Ser Arg Ala Cys
180 185 190

His Pro Cys Ser Pro Met Cys Lys Gly Ser Arg Cys Trp Gly Glu Ser 195 200 205

Ser Glu Asp Cys Gln Ser Leu Thr Arg Thr Val Cys Ala Gly Gly Cys 210 215 220

Ala Arg Cys Lys Gly Pro Leu Pro Thr Asp Cys Cys His Glu Gln Cys 225 230 235 240

225

Ala Ala Gly Cys Thr Gly Pro Lys His Ser Asp Cys Leu Ala Cys Leu 245 250 255

His Phe Asn His Ser Gly Ile Cys Glu Leu His Cys Pro Ala Leu Val 260 265 270

Thr Tyr Asn Thr Asp Thr Phe Glu Ser Met Pro Asn Pro Glu Gly Arg 275 280 285

Tyr Thr Phe Gly Ala Ser Cys Val Thr Ala Cys Pro Tyr Asn Tyr Leu 290 295 300

Ser Thr Asp Val Gly Ser Cys Thr Leu Val Cys Pro Leu His Asn Gln 305 310 315 320

Glu Val Thr Ala Glu Asp Gly Thr Gln Arg Cys Glu Lys Cys Ser Lys 325 330 335

Pro Cys Ala Arg Val Cys Tyr Gly Leu Gly Met Glu His Leu Arg Glu 340 345 350

Val Arg Ala Val Thr Ser Ala Asn Ile Gln Glu Phe Ala Gly Cys Lys 355 360 365

Lys Ile Phe Gly Ser Leu Ala Phe Leu Pro Glu Ser Phe Asp Gly Asp 370 375 380

Pro Ala Ser Asn Thr Ala Pro Leu Gln Pro Glu Gln Leu Gln Val Phe 385 390 395 400

Glu Thr Leu Glu Glu Ile Thr Gly Tyr Leu Tyr Ile Ser Ala Trp Pro 405 410 415

Asp Ser Leu Pro Asp Leu Ser Val Phe Gln Asn Leu Gln Val Ile Arg
420 425 430

Gly Arg Ile Leu His Asn Gly Ala Tyr Ser Leu Thr Leu Gln Gly Leu
435 440 445

Gly Ile Ser Trp Leu Gly Leu Arg Ser Leu Arg Glu Leu Gly Ser Gly
450 455 460

Leu Ala Leu Ile His His Asn Thr His Leu Cys Phe Val His Thr Val 465 470 475 480

Pro Trp Asp Gln Leu Phe Arg Asn Pro His Gln Ala Leu Leu His Thr

485 490 495

Ala Asn Arg Pro Glu Asp Glu Cys Gly Lys Thr Gly Ser Pro Val Cys 500 505 510

Ala Leu Pro Ile Cys Gln His Thr Ala Val Pro Arg Gly Pro Trp Gln 515 520 525

Gln Arg Ser Trp Thr Cys Ala Asp Cys Pro Ser Leu Cys Thr Leu Leu 530 535 540

Asp Ser Ala Gln Leu Trp Leu Ala Trp Pro Leu Gly Met Ala Ser Leu 545 550 555 560

Ala Gly Ser Tyr Leu Pro Trp His Pro Ser Leu Pro Leu Phe Ser Glu 565 570 575

Ile Ser Glu Leu Phe Leu Ser Leu His Arg Pro His Leu Ser Pro Pro 580 585 590

Leu Gln Pro Thr Ala Met Pro Thr Ala Ser Ser Leu Val His Leu Asp 595 600 605

Leu Gly Pro Pro Leu Lys Val Pro Cys Gly Pro Phe Leu Leu Thr Ala 610 615 620

Val Gly Glu Gly Leu Ala Cys His Gln Leu Cys Ala Arg Gly His Cys 625 630 635 640

Trp Gly Pro Gly Pro Thr Gln Cys Val Asn Cys Ser Gln Phe Leu Arg 645 650 655

Gly Gln Glu Cys Val Glu Glu Cys Arg Val Leu Gln Gly Leu Pro Arg 660 665 670

Glu Tyr Val Asn Ala Arg His Cys Leu Pro Cys His Pro Glu Cys Gln 675 680 685

Pro Gln Asn Gly Ser Val Thr Cys Phe Gly Pro Glu Ala Asp Gln Cys 690 695 700

Val Ala Cys Ala His Tyr Lys Asp Pro Pro Phe Cys Val Ala Arg Cys 705 710 715 720

Pro Ser Gly Val Lys Pro Asp Leu Ser Tyr Met Pro Ile Trp Lys Phe 725 730 735 Pro Asp Glu Glu Gly Ala Cys Gln Pro Cys Pro Ile Asn Cys Thr His 740 745 750

Ser Cys Val Asp Leu Asp Asp Lys Gly Cys Pro Ala Glu Gln Arg Ala
755 760 765

Ser Pro Leu Thr Ser Ile Ile Ser Ala Val Val Gly Ile Leu Leu Val 770 780

Val Val Leu Gly Val Val Phe Gly Ile Leu Ile Lys Arg Arg Gln Gln 785 795 800

Lys Ile Arg Lys Tyr Thr Met Arg Arg Leu Leu Gln Glu Thr Glu Leu 805 810 815

Val Glu Pro Leu Thr Pro Ser Gly Ala Met Pro Asn Gln Ala Gln Met 820 825 830

Arg Ile Leu Lys Glu Thr Glu Leu Arg Lys Val Lys Val Leu Gly Ser 835 840 845

Gly Ala Phe Gly Thr Val Tyr Lys Gly Ile Trp Ile Pro Asp Gly Glu 850 855 860

Asn Val Lys Ile Pro Val Ala Ile Lys Val Leu Arg Glu Asn Thr Ser 865 870 875 886

Pro Lys Ala Asn Lys Glu Ile Leu Asp Glu Ala Tyr Val Met Ala Gly 885 890 895

Val Gly Ser Pro Tyr Val Ser Arg Leu Leu Gly Ile Cys Leu Thr Ser 900 905 910

Thr Val Gln Leu Val Thr Gln Leu Met Pro Tyr Gly Cys Leu Leu Asp 915 920 925

His Val Arg Glu Asn Arg Gly Arg Leu Gly Ser Gln Asp Leu Leu Asn 930 935 940

Trp Cys Met Gln Ile Ala Lys Gly Met Ser Tyr Leu Glu Asp Val Arg 945 950 955 960

Leu Val His Arg Asp Leu Ala Ala Arg Asn Val Leu Val Lys Ser Pro

228

Asn His Val Lys Ile Thr Asp Phe Gly Leu Ala Arg Leu Leu Asp Ile 980 985 990

- Asp Glu Thr Glu Tyr His Ala Asp Gly Gly Lys Val Pro Ile Lys Trp 995 1000 1005
- Met Ala Leu Glu Ser Ile Leu Arg Arg Arg Phe Thr His Gln Ser 1010 1015 1020
- Asp Val Trp Ser Tyr Gly Val Thr Val Trp Glu Leu Met Thr Phe 1025 1030 1035
- Gly Ala Lys Pro Tyr Asp Gly Ile Pro Ala Arg Glu Ile Pro Asp 1040 1045 1050
- Leu Leu Glu Lys Gly Glu Arg Leu Pro Gln Pro Pro Ile Cys Thr 1055 1060 1065
- Ile Asp Val Tyr Met Ile Met Val Lys Cys Trp Met Ile Asp Ser 1070 1075 1080
- Glu Cys Arg Pro Arg Phe Arg Glu Leu Val Ser Glu Phe Ser Arg 1085 1090 1095
- Met Ala Arg Asp Pro Gln Arg Phe Val Val Ile Gln Asn Glu Asp 1100 1105 1110
- Leu Gly Pro Ala Ser Pro Leu Asp Ser Thr Phe Tyr Arg Ser Leu 1115 1120 1120
- Leu Glu Asp Asp Asp Met Gly Asp Leu Val Asp Ala Glu Glu Tyr 1130 1135 1140
- Leu Val Pro Gln Gln Gly Phe Phe Cys Pro Asp Pro Ala Pro Gly 1145 1150 1155
- Ala Gly Gly Met Val His His Arg His Arg Ser Ser Ser Thr Arg 1160 1165 1170
- Ser Gly Gly Gly Asp Leu Thr Leu Gly Leu Glu Pro Ser Glu Glu 1175 1180 1185
- Glu Ala Pro Arg Ser Pro Leu Ala Pro Ser Glu Gly Ala Gly Ser 1190 1195 1200

229

Asp Val Phe Asp Gly Asp Leu Gly Met Gly Ala Ala Lys Gly Leu 1210 Gln Ser Leu Pro Thr His Asp Pro Ser Pro Leu Gln Arg Tyr Ser 1225 1220 Glu Asp Pro Thr Val Pro Leu Pro Ser Glu Thr Asp Gly Tyr Val 1240 1235 Ala Pro Leu Thr Cys Ser Pro Gln Pro Glu Tyr Val Asn Gln Pro 1255 1250 Asp Val Arg Pro Gln Pro Pro Ser Pro Arg Glu Gly Pro Leu Pro 1270 1275 Ala Ala Arg Pro Ala Gly Ala Thr Leu Glu Arg Ala Lys Thr Leu 1280 1285 1290 Ser Pro Gly Lys Asn Gly Val Val Lys Asp Val Phe Ala Phe Gly 1300 1295 Gly Ala Val Glu Asn Pro Glu Tyr Leu Thr Pro Gln Gly Gly Ala 1315 Ala Pro Gln Pro His Pro Pro Pro Ala Phe Ser Pro Ala Phe Asp 1330 Asn Leu Tyr Tyr Trp Asp Gln Asp Pro Pro Glu Arg Gly Ala Pro 1345 Pro Ser Thr Phe Lys Gly Thr Pro Thr Ala Glu Asn Pro Glu Tyr 1355 1360 1365 Leu Gly Leu Asp Val Pro Val 1370 1375 <210> 182 <211> 575 <212> PRT <213> Homo sapien <400> 182

Met Glu Leu Ala Ala Leu Cys Arg Trp Gly Leu Leu Leu Ala Leu Leu 1 5 10 15

Pro Pro Gly Ala Ala Ser Thr Gln Val Cys Thr Gly Thr Asp Met Lys 20 25 30

Leu Arg Leu Pro Ala Ser Pro Glu Thr His Leu Asp Met Leu Arg His 35 40 45

Leu Tyr Gln Gly Cys Gln Val Val Gln Gly Asn Leu Glu Leu Thr Tyr
50 55 60

Leu Pro Thr Asn Ala Ser Leu Ser Phe Leu Gln Asp Ile Gln Glu Val 65 70 75 80

Gln Gly Tyr Val Leu Ile Ala His Asn Gln Val Arg Gln Val Pro Leu  $85 \hspace{1.5cm} 90 \hspace{1.5cm} 95$ 

Gln Arg Leu Arg Ile Val Arg Gly Thr Gln Leu Phe Glu Asp Asn Tyr 100 105 110

Ala Leu Ala Val Leu Asp Asn Gly Asp Pro Leu Asn Asn Thr Thr Pro 115 120 125

Val Thr Gly Ala Ser Pro Gly Gly Leu Arg Glu Leu Gln Leu Arg Ser 130 135 140

Leu Thr Glu Ile Leu Lys Gly Gly Val Leu Ile Gln Arg Asn Pro Gln 145 150 155 160

Leu Cys Tyr Gln Asp Thr Ile Leu Trp Lys Asp Ile Phe His Lys Asn 165 170 175

Asn Gln Leu Ala Leu Thr Leu Ile Asp Thr Asn Arg Ser Arg Ala Cys 180 185 190

His Pro Cys Ser Pro Met Cys Lys Gly Ser Arg Cys Trp Gly Glu Ser 195 200 205

Ser Glu Asp Cys Gln Ser Leu Thr Arg Thr Val Cys Ala Gly Gly Cys 210 215 220

Ala Arg Cys Lys Gly Pro Leu Pro Thr Asp Cys Cys His Glu Gln Cys 225 230 235

Ala Ala Gly Cys Thr Gly Pro Lys His Ser Asp Cys Leu Ala Cys Leu 245 250 255

His Phe Asn His Ser Gly Ile Cys Glu Leu His Cys Pro Ala Leu Val 260 265 270

231

Thr Tyr Asn Thr Asp Thr Phe Glu Ser Met Pro Asn Pro Glu Gly Arg 275 280 285

Tyr Thr Phe Gly Ala Ser Cys Val Thr Ala Cys Pro Tyr Asn Tyr Leu 290 295 300

Ser Thr Asp Val Gly Ser Cys Thr Leu Val Cys Pro Leu His Asn Gln 305 310 315 320

Glu Val Thr Ala Glu Asp Gly Thr Gln Arg Cys Glu Lys Cys Ser Lys 325 330 335

Pro Cys Ala Arg Val Cys Tyr Gly Leu Gly Met Glu His Leu Arg Glu 340 345 350

Val Arg Ala Val Thr Ser Ala Asn Ile Gln Glu Phe Ala Gly Cys Lys 355 360 365

Lys Ile Phe Gly Ser Leu Ala Phe Leu Pro Glu Ser Phe Asp Gly Asp 370 375 380

Pro Ala Ser Asn Thr Ala Pro Leu Gln Pro Glu Gln Leu Gln Val Phe 385 390 395 400

Glu Thr Leu Glu Glu Ile Thr Gly Tyr Leu Tyr Ile Ser Ala Trp Pro 405 410 415

Asp Ser Leu Pro Asp Leu Ser Val Phe Gln Asn Leu Gln Val Ile Arg 420 425 430

Gly Arg Ile Leu His Asn Gly Ala Tyr Ser Leu Thr Leu Gln Gly Leu 435 440 445

Gly Ile Ser Trp Leu Gly Leu Arg Ser Leu Arg Glu Leu Gly Ser Gly
450 455 460

Leu Ala Leu Ile His His Asn Thr His Leu Cys Phe Val His Thr Val
465 470 475 480

Pro Trp Asp Gln Leu Phe Arg Asn Pro His Gln Ala Leu Leu His Thr 485 490 495

Ala Asn Arg Pro Glu Asp Glu Cys Gly Lys Thr Gly Ser Pro Val Cys
500 505 510

232

Ala Leu Pro Ile Cys Gln His Thr Ala Val Pro Arg Gly Pro Trp Gln

Gln Arg Ser Trp Thr Cys Ala Asp Cys Pro Ser Leu Cys Thr Leu Leu 530

Asp Ser Ala Gln Leu Trp Leu Ala Trp Pro Leu Gly Met Ala Ser Leu 550 555

Ala Gly Ser Tyr Leu Pro Trp His Pro Ser Leu Pro Leu Cys Phe 570 565

<210> 183 <211> 815 <212> PRT

<213> Homo sapien

<400> 183

Leu Gly Pro Thr Cys Leu Gly Ile Leu Pro Ser Pro Ser Val Ser Glu

Ile Ser Glu Leu Phe Leu Ser Leu His Arg Pro His Leu Ser Pro Pro 25

Leu Gln Pro Thr Ala Met Pro Thr Ala Ser Ser Leu Val His Leu Asp 35 40

Leu Gly Pro Pro Leu Lys Val Pro Cys Gly Pro Phe Leu Leu Thr Ala 55

Val Gly Glu Gly Leu Ala Cys His Gln Leu Cys Ala Arg Gly His Cys

Trp Gly Pro Gly Pro Thr Gln Cys Val Asn Cys Ser Gln Phe Leu Arg

Gly Gln Glu Cys Val Glu Glu Cys Arg Val Leu Gln Gly Leu Pro Arg 105

Glu Tyr Val Asn Ala Arg His Cys Leu Pro Cys His Pro Glu Cys Gln 115

Pro Gln Asn Gly Ser Val Thr Cys Phe Gly Pro Glu Ala Asp Gln Cys 130

Val Ala Cys Ala His Tyr Lys Asp Pro Pro Phe Cys Val Ala Arg Cys 160 150 155 145

233

Pro Ser Gly Val Lys Pro Asp Leu Ser Tyr Met Pro Ile Trp Lys Phe 165 170 175

Pro Asp Glu Glu Gly Ala Cys Gln Pro Cys Pro Ile Asn Cys Thr His 180 185 190

Ser Cys Val Asp Leu Asp Asp Lys Gly Cys Pro Ala Glu Gln Arg Ala 195 200 205

Ser Pro Leu Thr Ser Ile Ile Ser Ala Val Val Gly Ile Leu Leu Val 210 215 220

Val Val Leu Gly Val Val Phe Gly Ile Leu Ile Lys Arg Arg Gln Gln 225 230 235 240

Lys Ile Arg Lys Tyr Thr Met Arg Arg Leu Leu Gln Glu Thr Glu Leu 245 250 255

Val Glu Pro Leu Thr Pro Ser Gly Ala Met Pro Asn Gln Ala Gln Met 260 265 270

Arg Ile Leu Lys Glu Thr Glu Leu Arg Lys Val Lys Val Leu Gly Ser 275 280 285

Gly Ala Phe Gly Thr Val Tyr Lys Gly Ile Trp Ile Pro Asp Gly Glu 290 295 300

Asn Val Lys Ile Pro Val Ala Ile Lys Val Leu Arg Glu Asn Thr Ser 305 310 315 320

Pro Lys Ala Asn Lys Glu Ile Leu Asp Glu Ala Tyr Val Met Ala Gly 325 330 335

Val Gly Ser Pro Tyr Val Ser Arg Leu Leu Gly Ile Cys Leu Thr Ser 340 345 350

Thr Val Gln Leu Val Thr Gln Leu Met Pro Tyr Gly Cys Leu Leu Asp 355 360 365

His Val Arg Glu Asn Arg Gly Arg Leu Gly Ser Gln Asp Leu Leu Asn 370 375 380

Trp Cys Met Gln Ile Ala Lys Gly Met Ser Tyr Leu Glu Asp Val Arg 385 390 395 400

- Leu Val His Arg Asp Leu Ala Ala Arg Asn Val Leu Val Lys Ser Pro 405 410 415
- Asn His Val Lys Ile Thr Asp Phe Gly Leu Ala Arg Leu Leu Asp Ile 420 425 430
- Asp Glu Thr Glu Tyr His Ala Asp Gly Gly Lys Val Pro Ile Lys Trp
  435 440 445
- Met Ala Leu Glu Ser Ile Leu Arg Arg Arg Phe Thr His Gln Ser Asp 450 455 460
- Val Trp Ser Tyr Gly Val Thr Val Trp Glu Leu Met Thr Phe Gly Ala 465 470 475 480
- Lys Pro Tyr Asp Gly Ile Pro Ala Arg Glu Ile Pro Asp Leu Glu 485 490 495
- Lys Gly Glu Arg Leu Pro Gln Pro Pro Ile Cys Thr Ile Asp Val Tyr 500 505 510
- Met Ile Met Val Lys Cys Trp Met Ile Asp Ser Glu Cys Arg Pro Arg 515 520 525
- Phe Arg Glu Leu Val Ser Glu Phe Ser Arg Met Ala Arg Asp Pro Gln 530 540
- Arg Phe Val Val Ile Gln Asn Glu Asp Leu Gly Pro Ala Ser Pro Leu 545 550 555 560
- Asp Ser Thr Phe Tyr Arg Ser Leu Leu Glu Asp Asp Met Gly Asp 565 570 575
- Leu Val Asp Ala Glu Glu Tyr Leu Val Pro Gln Gln Gly Phe Phe Cys 580 585 590
- Pro Asp Pro Ala Pro Gly Ala Gly Gly Met Val His His Arg His Arg 595 600 605
- Ser Ser Ser Thr Arg Ser Gly Gly Gly Asp Leu Thr Leu Gly Leu Glu 610 620
- Pro Ser Glu Glu Glu Ala Pro Arg Ser Pro Leu Ala Pro Ser Glu Gly 625 630 635 640

235

Ala Gly Ser Asp Val Phe Asp Gly Asp Leu Gly Met Gly Ala Ala Lys

Gly Leu Gln Ser Leu Pro Thr His Asp Pro Ser Pro Leu Gln Arg Tyr 665

Ser Glu Asp Pro Thr Val Pro Leu Pro Ser Glu Thr Asp Gly Tyr Val 680

Ala Pro Leu Thr Cys Ser Pro Gln Pro Glu Tyr Val Asn Gln Pro Asp 695

Val Arg Pro Gln Pro Pro Ser Pro Arg Glu Gly Pro Leu Pro Ala Ala 710 715

Arg Pro Ala Gly Ala Thr Leu Glu Arg Ala Lys Thr Leu Ser Pro Gly 725 730

Lys Asn Gly Val Val Lys Asp Val Phe Ala Phe Gly Gly Ala Val Glu

Asn Pro Glu Tyr Leu Thr Pro Gln Gly Gly Ala Ala Pro Gln Pro His **, 760** 

Pro Pro Pro Ala Phe Ser Pro Ala Phe Asp Asn Leu Tyr Tyr Trp Asp

Gln Asp Pro Pro Glu Arg Gly Ala Pro Pro Ser Thr Phe Lys Gly Thr 795

Pro Thr Ala Glu Asn Pro Glu Tyr Leu Gly Leu Asp Val Pro Val 805 810

<210> 184 <211> 164 <212> PRT

<213> Homo sapien

Ser Arg Gly Ser Leu Ser Thr Phe Cys Ser Ala Leu Thr Asp Pro Ser 5

Pro Leu Gln Arg Tyr Ser Glu Asp Pro Thr Val Pro Leu Pro Ser Glu

Thr Asp Gly Tyr Val Ala Pro Leu Thr Cys Ser Pro Gln Pro Glu Tyr 40

236

Val Asn Gln Pro Asp Val Arg Pro Gln Pro Pro Ser Pro Arg Glu Gly

Pro Leu Pro Ala Ala Arg Pro Ala Gly Ala Thr Leu Glu Arg Ala Lys

Thr Leu Ser Pro Gly Lys Asn Gly Val Val Lys Asp Val Phe Ala Phe

Gly Gly Ala Val Glu Asn Pro Glu Tyr Leu Thr Pro Gln Gly Gly Ala 105

Ala Pro Gln Pro His Pro Pro Pro Ala Phe Ser Pro Ala Phe Asp Asn

Leu Tyr Tyr Trp Asp Gln Asp Pro Pro Glu Arg Gly Ala Pro Pro Ser 140 135 130

Thr Phe Lys Gly Thr Pro Thr Ala Glu Asn Pro Glu Tyr Leu Gly Leu 145 150 155

Asp Val Pro Val

<210> 185

<211> 162 <212> PRT

<213> Homo sapien

<400> 185

Arg Ile Leu Val Asp Phe Cys Ser Ala Leu Thr Asp Pro Ser Pro Leu

Gln Arg Tyr Ser Glu Asp Pro Thr Val Pro Leu Pro Ser Glu Thr Asp 25

Gly Tyr Val Ala Pro Leu Thr Cys Ser Pro Gln Pro Glu Tyr Val Asn 35 40

Gln Pro Asp Val Arg Pro Gln Pro Pro Ser Pro Arg Glu Gly Pro Leu

Pro Ala Ala Arg Pro Ala Gly Ala Thr Leu Glu Arg Ala Lys Thr Leu

237

Ser Pro Gly Lys Asn Gly Val Val Lys Asp Val Phe Ala Phe Gly Gly

Ala Val Glu Asn Pro Glu Tyr Leu Thr Pro Gln Gly Gly Ala Ala Pro 100 105

Gln Pro His Pro Pro Pro Ala Phe Ser Pro Ala Phe Asp Asn Leu Tyr 115 120

Tyr Trp Asp Gln Asp Pro Pro Glu Arg Gly Ala Pro Pro Ser Thr Phe

Lys Gly Thr Pro Thr Ala Glu Asn Pro Glu Tyr Leu Gly Leu Asp Val 150

Pro Val

<210> 186 <211> 75 <212> PRT

<213> Homo sapien

<400> 186

Leu Tyr Gly Pro Lys Val Ala Thr Pro Ser Ser Cys Leu Gln Pro Ser 5

Leu Arg Gln Pro Leu Leu Gly Pro Gly Pro Thr Arg Ala Gly Gly

Ser Thr Gln His Leu Gln Arg Asp Thr Tyr Gly Arg Glu Pro Arg Val

Pro Gly Ser Gly Arg Ala Ser Val Asn Gln Lys Ala Lys Ser Ala Glu

Ala Leu Met Cys Pro Gln Gly Ala Gly Lys Ala

<210> 187

<211> 100

<212> PRT

<213> Homo sapien

Cys Val Leu Arg Glu Gln Gly Arg Pro Asp Phe Cys Trp His Gln Glu

238

PCT/US2004/011104

Val Gly Gly Pro Ser Asp His Phe Gln Gly Asn Leu Pro Cys Gln Glu 25

Pro Val Leu Arg Asn Leu Pro Ser Cys Leu Ser Ser Gln Met Ala Gly

Arg Gly Pro Ala Ser Leu Glu Glu Glu Gln His Trp Gly Val Phe Val

Asp Ser Glu Ala Leu Pro Asn Glu Thr Leu Gly Ser Ser Gly Cys His 70 65

Ser Pro Ala Trp Pro Phe Pro Ser Arg Ser Trp Val Leu Lys Ala Leu 90 85

Gly Lys Leu Ala 100

WO 2004/092338

<210> 188 <211> 678 <212> PRT <213> Homo sapien

<400> 188

Met Glu Leu Ala Ala Leu Cys Arg Trp Gly Leu Leu Leu Ala Leu Leu

Pro Pro Gly Ala Ala Ser Thr Gln Val Cys Thr Gly Thr Asp Met Lys 20 25

Leu Arg Leu Pro Ala Ser Pro Glu Thr His Leu Asp Met Leu Arg His 35 40

Leu Tyr Gln Gly Cys Gln Val Val Gln Gly Asn Leu Glu Leu Thr Tyr

Leu Pro Thr Asn Ala Ser Leu Ser Phe Leu Gln Asp Ile Gln Glu Val

Gln Gly Tyr Val Leu Ile Ala His Asn Gln Val Arg Gln Val Pro Leu

Gln Arg Leu Arg Ile Val Arg Gly Thr Gln Leu Phe Glu Asp Asn Tyr 105

Ala Leu Ala Val Leu Asp Asn Gly Asp Pro Leu Asn Asn Thr Thr Pro

239

120 125 115 Val Thr Gly Ala Ser Pro Gly Gly Leu Arg Glu Leu Gln Leu Arg Ser 135 Leu Thr Glu Ile Leu Lys Gly Gly Val Leu Ile Gln Arg Asn Pro Gln Leu Cys Tyr Gln Asp Thr Ile Leu Trp Lys Asp Ile Phe His Lys Asn Asn Gln Leu Ala Leu Thr Leu Ile Asp Thr Asn Arg Ser Arg Ala Cys 185 His Pro Cys Ser Pro Met Cys Lys Gly Ser Arg Cys Trp Gly Glu Ser 200 Ser Glu Asp Cys Gln Ser Leu Thr Arg Thr Val Cys Ala Gly Gly Cys Ala Arg Cys Lys Gly Pro Leu Pro Thr Asp Cys Cys His Glu Gln Cys 230 Ala Ala Gly Cys Thr Gly Pro Lys His Ser Asp Cys Leu Ala Cys Leu 250 245 His Phe Asn His Ser Gly Ile Cys Glu Leu His Cys Pro Ala Leu Val 260 265 Thr Tyr Asn Thr Asp Thr Phe Glu Ser Met Pro Asn Pro Glu Gly Arg Tyr Thr Phe Gly Ala Ser Cys Val Thr Ala Cys Pro Tyr Asn Tyr Leu Ser Thr Asp Val Gly Ser Cys Thr Leu Val Cys Pro Leu His Asn Gln 310 315 Glu Val Thr Ala Glu Asp Gly Thr Gln Arg Cys Glu Lys Cys Ser Lys Pro Cys Ala Arg Val Cys Tyr Gly Leu Gly Met Glu His Leu Arg Glu

Val Arg Ala Val Thr Ser Ala Asn Ile Gln Glu Phe Ala Gly Cys Lys 360

355

Lys Ile Phe Gly Ser Leu Ala Phe Leu Pro Glu Ser Phe Asp Gly Asp 370 375 380

Pro Ala Ser Asn Thr Ala Pro Leu Gln Pro Glu Gln Leu Gln Val Phe 385 390 395 400

Glu Thr Leu Glu Glu Ile Thr Gly Tyr Leu Tyr Ile Ser Ala Trp Pro 405 410 415

Asp Ser Leu Pro Asp Leu Ser Val Phe Gln Asn Leu Gln Val Ile Arg 420 425 430

Gly Arg Ile Leu His Asn Gly Ala Tyr Ser Leu Thr Leu Gln Gly Leu 435 440 445

Gly Ile Ser Trp Leu Gly Leu Arg Ser Leu Arg Glu Leu Gly Ser Gly 450 455 460

Leu Ala Leu Ile His His Asn Thr His Leu Cys Phe Val His Thr Val 465 470 475 480

Pro Trp Asp Gln Leu Phe Arg Asn Pro His Gln Ala Leu Leu His Thr 485 490 495

Ala Asn Arg Pro Glu Asp Glu Cys Val Gly Glu Gly Leu Ala Cys His 500 505 510

Gln Leu Cys Ala Arg Gly His Cys Trp Gly Pro Gly Pro Thr Gln Cys 515 520 525

Val Asn Cys Ser Gln Phe Leu Arg Gly Gln Glu Cys Val Glu Glu Cys 530 535 540

Arg Val Leu Gln Gly Leu Pro Arg Glu Tyr Val Asn Ala Arg His Cys 545 550 555

Leu Pro Cys His Pro Glu Cys Gln Pro Gln Asn Gly Ser Val Thr Cys
575

Phe Gly Pro Glu Ala Asp Gln Cys Val Ala Cys Ala His Tyr Lys Asp 580 585 590

Pro Pro Phe Cys Val Ala Arg Cys Pro Ser Gly Val Lys Pro Asp Leu 595 600 605

241

Ser Tyr Met Pro Ile Trp Lys Phe Pro Asp Glu Glu Gly Ala Cys Gln 615

Pro Cys Pro Ile Asn Cys Thr His Ser Cys Val Asp Leu Asp Asp Lys

Gly Cys Pro Ala Glu Gln Arg Ala Arg Leu Ala Trp Thr Pro Gly Cys

Thr Leu His Cys Pro Ser Leu Pro His Trp Met Leu Gly Gly His Cys 665 660

Cys Arg Glu Gly Thr Pro 675

<210> 189

<211> 195 <212> PRT

<213> Homo sapien

<400> 189

Met Ala Ala Gly Gln Arg Arg Ser Ser Leu Ser Arg Leu Gly Ser Gln

Ala Glu Gly Leu Leu Ile Ser Gln Thr Met Gly Gly Gln Ala Glu Thr

Leu Leu Thr Ser Gln Thr Gly Trp Arg Pro Gly Arg Gly Cys Asn Leu

Gly Ser Leu Gly Gly Gln Gly Arg Arg Leu Gly Gly Gly Cys Ser Glu 50 55 60

Pro Arg Ser Arg His Cys Thr Pro Ala Leu Ala Pro Ile Glu His Trp

Val Asn Glu Thr Pro Ser Ala Ile Pro Ala Pro Arg Glu Ala Glu Val

Val Asp His Ser Arg Leu Gly Ala Gly Val Glu Ala Lys Asn Tyr Glu

Glu Ile Ala Lys Val Glu Lys Leu Lys Pro Leu Glu Val Glu Leu Arg

Arg Leu Glu Asp Leu Ser Glu Ser Ile Val Asn Asp Phe Ala Tyr Met

242

130 135 140

Lys Lys Arg Glu Glu Glu Met Arg Asp Thr Asn Glu Ser Thr Asn Thr 145 150 155

Arg Val Leu Tyr Phe Ser Ile Phe Ser Met Phe Cys Leu Ile Gly Leu

Ala Thr Trp Gln Val Phe Tyr Leu Arg Arg Phe Phe Lys Ala Lys Lys 185

Leu Ile Glu

<210> 190

<211> 114 <212> PRT <213> Homo sapien

<220>

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<400> 190

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Asp His Ser Arg Leu Gly Ala Gly Val Glu Ala Lys Asn Tyr Glu Glu 25

Ile Ala Lys Val Glu Lys Leu Lys Pro Leu Glu Val Glu Leu Arg Arg 35 40

Leu Glu Asp Leu Ser Glu Ser Ile Val Asn Asp Phe Ala Tyr Met Lys

Lys Arg Glu Glu Glu Met Arg Asp Thr Asn Glu Ser Thr Asn Thr Arg

Val Leu Tyr Phe Ser Ile Phe Ser Met Phe Cys Leu Ile Gly Leu Ala

Thr Trp Gln Val Phe Tyr Leu Arg Arg Phe Phe Lys Ala Lys Lys Leu 105

Ile Glu

PCT/US2004/011104

<210> 191 <211> 64 <212> PRT

WO 2004/092338

<213> Homo sapien

<400> 191

Met Ser Ala Leu Trp Arg Phe Gly Leu Phe Asn Thr Gly Leu Gly Gln

Asp Ser Glu Gly His Cys Gly Pro Ser Thr Ile Arg Ser Phe Pro Phe

Pro Leu Met Thr Ser Pro Val Ala Leu Phe Ser Leu Phe Gln Met Ala 40

Gln Thr Thr Pro Pro Phe Pro Pro His Thr Pro Ile Thr Val Gln Gly 55

<210> 192 <211> 325 <212> PRT <213> Homo sapien

<400> 192

His Arg Ile Gly Thr Gly Phe Arg Gly Thr Leu Trp Pro Phe Tyr Asn

Gln Glu Leu Pro Leu Ser Ser Asp Asp Ile Thr Cys Gly Phe Val Leu

Phe Val Pro Asp Gly Pro Asp Asp Pro Thr Ile Ser Pro Ser Tyr Thr

Tyr Tyr Arg Pro Gly Val Asn Leu Ser Leu Ser Cys His Ala Ala Ser

Asn Pro Pro Ala Gln Tyr Ser Trp Leu Ile Asp Gly Asn Ile Gln Gln 70 75

His Thr Gln Glu Leu Phe Ile Ser Asn Ile Thr Glu Lys Asn Ser Gly

Leu Tyr Thr Cys Gln Ala Asn Asn Ser Ala Ser Gly His Ser Arg Thr 105

244

Thr Val Lys Thr Ile Thr Val Ser Ala Glu Leu Pro Lys Pro Ser Ile 120

Ser Ser Asn Asn Ser Lys Pro Val Glu Asp Lys Asp Ala Val Ala Phe 140

Thr Cys Glu Pro Glu Ala Gln Asn Thr Thr Tyr Leu Trp Trp Val Asn 150

Gly Gln Ser Leu Pro Val Ser Pro Arg Leu Gln Leu Ser Asn Gly Asn 170 165

Arg Thr Leu Thr Leu Phe Asn Val Thr Arg Asn Asp Ala Arg Ala Tyr 185 180

Val Cys Gly Ile Gln Asn Ser Val Ser Ala Asn Arg Ser Asp Pro Val 195 200 205

Thr Leu Asp Val Leu Tyr Gly Pro Asp Thr Pro Ile Ile Ser Pro Pro

Asp Ser Ser Tyr Leu Ser Gly Ala Asn Leu Asn Leu Ser Cys His Ser

Ala Ser Asn Pro Ser Pro Gln Tyr Ser Trp Arg Ile Asn Gly Ile Pro

Gln Gln His Thr Gln Val Leu Phe Ile Ala Lys Ile Thr Pro Asn Asn

Asn Gly Thr Tyr Ala Cys Phe Val Ser Asn Leu Ala Thr Gly Arg Asn 275 280

Asn Ser Ile Val Lys Ser Ile Thr Val Ser Ala Ser Gly Thr Ser Pro 300 295 290

Gly Leu Ser Ala Gly Ala Thr Val Gly Ile Met Ile Gly Val Leu Val 305 310 315

Gly Val Ala Leu Ile

<210> 193

<211> 702 <212> PRT <213> Homo sapien

PCT/US2004/011104

<400> 193

WO 2004/092338

Met Glu Ser Pro Ser Ala Pro Pro His Arg Trp Cys Ile Pro Trp Gln 1 5 10 15

Arg Leu Leu Thr Ala Ser Leu Leu Thr Phe Trp Asn Pro Pro Thr 20 25 30

Thr Ala Lys Leu Thr Ile Glu Ser Thr Pro Phe Asn Val Ala Glu Gly 35  $\phantom{\bigg|}40\phantom{\bigg|}$ 

Lys Glu Val Leu Leu Val His Asn Leu Pro Gln His Leu Phe Gly 50 55 60

Tyr Ser Trp Tyr Lys Gly Glu Arg Val Asp Gly Asn Arg Gln Ile Ile 65 70 75 80

Gly Tyr Val Ile Gly Thr Gln Gln Ala Thr Pro Gly Pro Ala Tyr Ser 85 90 95

Gly Arg Glu Ile Ile Tyr Pro Asn Ala Ser Leu Leu Ile Gln Asn Ile 100 105 110

Ile Gln Asn Asp Thr Gly Phe Tyr Thr Leu His Val Ile Lys Ser Asp 115 120 125

Leu Val Asn Glu Glu Ala Thr Gly Gln Phe Arg Val Tyr Pro Glu Leu 130 135 140

Pro Lys Pro Ser Ile Ser Ser Asn Asn Ser Lys Pro Val Glu Asp Lys 145 150 155

Asp Ala Val Ala Phe Thr Cys Glu Pro Glu Thr Gln Asp Ala Thr Tyr 165 170 175

Leu Trp Trp Val Asn Asn Gln Ser Leu Pro Val Ser Pro Arg Leu Gln 180 185 190

Leu Ser Asn Gly Asn Arg Thr Leu Thr Leu Phe Asn Val Thr Arg Asn 195 200 205

Asp Thr Ala Ser Tyr Lys Cys Glu Thr Gln Asn Pro Val Ser Ala Arg 210 215 220

Arg Ser Asp Ser Val Ile Leu Asn Val Leu Tyr Gly Pro Asp Ala Pro 225 230 235 240

246

Thr Ile Ser Pro Leu Asn Thr Ser Tyr Arg Ser Gly Glu Asn Leu Asn 245 250 255

Leu Ser Cys His Ala Ala Ser Asn Pro Pro Ala Gln Tyr Ser Trp Phe 260 265 270

Val Asn Gly Thr Phe Gln Gln Ser Thr Gln Glu Leu Phe Ile Pro Asn 275 280 285

Ile Thr Val Asn Asn Ser Gly Ser Tyr Thr Cys Gln Ala His Asn Ser 290 295 300

Asp Thr Gly Leu Asn Arg Thr Thr Val Thr Thr Ile Thr Val Tyr Ala 305 310 315 320

Glu Pro Pro Lys Pro Phe Ile Thr Ser Asn Asn Ser Asn Pro Val Glu 325 330 335

Asp Glu Asp Ala Val Ala Leu Thr Cys Glu Pro Glu Ile Gln Asn Thr 340 345 350

Thr Tyr Leu Trp Trp Val Asn Asn Gln Ser Leu Pro Val Ser Pro Arg 355 360 365

Leu Gln Leu Ser Asn Asp Asn Arg Thr Leu Thr Leu Leu Ser Val Thr 370 375 380

Arg Asn Asp Val Gly Pro Tyr Glu Cys Gly Ile Gln Asn Glu Leu Ser 385 390 395 400

Val Asp His Ser Asp Pro Val Ile Leu Asn Val Leu Tyr Gly Pro Asp 405 410 415

Asp Pro Thr Ile Ser Pro Ser Tyr Thr Tyr Tyr Arg Pro Gly Val Asn 420 425 430

Leu Ser Leu Ser Cys His Ala Ala Ser Asn Pro Pro Ala Gln Tyr Ser 435 440 445

Trp Leu Ile Asp Gly Asn Ile Gln Gln His Thr Gln Glu Leu Phe Ile 450 455 460

Ser Asn Ile Thr Glu Lys Asn Ser Gly Leu Tyr Thr Cys Gln Ala Asn 465 470 475 480

247

Asn Ser Ala Ser Gly His Ser Arg Thr Thr Val Lys Thr Ile Thr Val

Ser Ala Glu Leu Pro Lys Pro Ser Ile Ser Ser Asn Asn Ser Lys Pro 505

Val Glu Asp Lys Asp Ala Val Ala Phe Thr Cys Glu Pro Glu Ala Gln 515 520

Asn Thr Thr Tyr Leu Trp Trp Val Asn Gly Gln Ser Leu Pro Val Ser 535

Pro Arg Leu Gln Leu Ser Asn Gly Asn Arg Thr Leu Thr Leu Phe Asn

Val Thr Arg Asn Asp Ala Arg Ala Tyr Val Cys Gly Ile Gln Asn Ser

Val Ser Ala Asn Arg Ser Asp Pro Val Thr Leu Asp Val Leu Tyr Gly 580 585

Pro Asp Thr Pro Ile Ile Ser Pro Pro Asp Ser Ser Tyr Leu Ser Gly

Ala Asn Leu Asn Leu Ser Cys His Ser Ala Ser Asn Pro Ser Pro Gln

Tyr Ser Trp Arg Ile Asn Gly Ile Pro Gln Gln His Thr Gln Val Leu 630 635

Phe Ile Ala Lys Ile Thr Pro Asn Asn Gly Thr Tyr Ala Cys Phe 645 650 655

Val Ser Asn Leu Ala Thr Gly Arg Asn Asn Ser Ile Val Lys Ser Ile 660 665

Thr Val Ser Ala Ser Gly Thr Ser Pro Gly Leu Ser Ala Gly Ala Thr

Val Gly Ile Met Ile Gly Val Leu Val Gly Val Ala Leu Ile 690 695

<210> 194

<211> 726

<212> PRT <213> Homo sapien

248

<400> 194

Met Glu Ser Pro Ser Ala Pro Pro His Arg Trp Cys Ile Pro Trp Gln 1 5 10 15

Arg Leu Leu Thr Ala Ser Leu Leu Thr Phe Trp Asn Pro Pro Thr 20 25 30

Thr Ala Lys Leu Thr Ile Glu Ser Thr Pro Phe Asn Val Ala Glu Gly 35 40 45

Lys Glu Val Leu Leu Val His Asn Leu Pro Gln His Leu Phe Gly 50 55 60

Tyr Ser Trp Tyr Lys Gly Glu Arg Val Asp Gly Asn Arg Gln Ile Ile 65 70 75 80

Gly Tyr Val Ile Gly Thr Gln Gln Ala Thr Pro Gly Pro Ala Tyr Ser 85 90 95

Gly Arg Glu Ile Ile Tyr Pro Asn Ala Ser Leu Leu Ile Gln Asn Ile 100 105 110

Ile Gln Asn Asp Thr Gly Phe Tyr Thr Leu His Val Ile Lys Ser Asp 115 120 125

Leu Val Asn Glu Glu Ala Thr Gly Gln Phe Arg Val Tyr Pro Glu Leu 130 135 140

Pro Lys Pro Ser Ile Ser Ser Asn Asn Ser Lys Pro Val Glu Asp Lys 145 150 155

Asp Ala Val Ala Phe Thr Cys Glu Pro Glu Thr Gln Asp Ala Thr Tyr
165 170 175

Leu Trp Trp Val Asn Asn Gln Ser Leu Pro Val Ser Pro Arg Leu Gln
180 185 190

Leu Ser Asn Gly Asn Arg Thr Leu Thr Leu Phe Asn Val Thr Arg Asn 195 200 205

Asp Thr Ala Ser Tyr Lys Cys Glu Thr Gln Asn Pro Val Ser Ala Arg 210 215 220

Arg Ser Asp Ser Val Ile Leu Asn Val Leu Tyr Gly Pro Asp Ala Pro 225 230 235

Thr Ile Ser Pro Leu Asn Thr Ser Tyr Arg Ser Gly Glu Asn Leu Asn 245 250 255

Leu Ser Cys His Ala Ala Ser Asn Pro Pro Ala Gln Tyr Ser Trp Phe 260 265 270

Val Asn Gly Thr Phe Gln Gln Ser Thr Gln Glu Leu Phe Ile Pro Asn 275 280 285

Ile Thr Val Asn Asn Ser Gly Ser Tyr Thr Cys Gln Ala His Asn Ser 290 295 300

Asp Thr Gly Leu Asn Arg Thr Thr Val Thr Thr Ile Thr Val Tyr Ala 305 310 315 320

Glu Pro Pro Lys Pro Phe Ile Thr Ser Asn Asn Ser Asn Pro Val Glu 325 330 335

Asp Glu Asp Ala Val Ala Leu Thr Cys Glu Pro Glu Ile Gln Asn Thr 340 345 350

Thr Tyr Leu Trp Trp Val Asn Asn Gln Ser Leu Pro Val Ser Pro Arg 355 360 365

Leu Gln Leu Ser Asn Asp Asn Arg Thr Leu Thr Leu Leu Ser Val Thr 370 380

Arg Asn Asp Val Gly Pro Tyr Glu Cys Gly Ile Gln Asn Glu Leu Ser

Val Asp His Ser Asp Pro Val IIe Leu Asn Val Leu Tyr Gly Pro Asp 405 410 415

Asp Pro Thr Ile Ser Pro Ser Tyr Thr Tyr Tyr Arg Pro Gly Val Asn 420 425 430

Leu Ser Leu Ser Cys His Ala Ala Ser Asn Pro Pro Ala Gln Tyr Ser 435 440 445

Trp Leu Ile Asp Gly Asn Ile Gln Gln His Thr Gln Glu Leu Phe Ile 450 455 460

Ser Asn Ile Thr Glu Lys Asn Ser Gly Leu Tyr Thr Cys Gln Ala Asn 465 470 475 480

250

Asn Ser Ala Ser Gly His Ser Arg Thr Thr Val Lys Thr Ile Thr Val
485 490 495

Ser Ala Glu Leu Pro Lys Pro Ser Ile Ser Ser Asn Asn Ser Lys Pro 500 505 510

Val Glu Asp Lys Asp Ala Val Ala Phe Thr Cys Glu Pro Glu Ala Gln 515 520 525

Asn Thr Thr Tyr Leu Trp Trp Val Asn Gly Gln Ser Leu Pro Val Ser 530 540

Pro Arg Leu Gln Leu Ser Asn Gly Asn Arg Thr Leu Thr Leu Phe Asn 545 550 555

Val Thr Arg Asn Asp Ala Arg Ala Tyr Val Cys Gly Ile Gln Asn Ser 565 570 575

Val Ser Ala Asn Arg Ser Asp Pro Val Thr Leu Asp Val Leu Tyr Gly 580 585 590

Pro Asp Thr Pro Ile Ile Ser Pro Pro Asp Ser Ser Tyr Leu Ser Gly 595 600 605

Ala Asn Leu Asn Leu Ser Cys His Ser Ala Ser Asn Pro Ser Pro Gln 610 615 620

Tyr Ser Trp Arg Ile Asn Gly Ile Pro Gln Gln His Thr Gln Val Leu 625 630 635 640

Phe Ile Ala Lys Ile Thr Pro Asn Asn Gly Thr Tyr Ala Cys Phe 645 650 655

Val Ser Asn Leu Ala Thr Gly Arg Asn Asn Ser Ile Val Lys Ser Ile 660 665 670

Thr Val Ser Asp Ser Cys Phe Ala Ser Ser Leu Lys His Leu Gln Gln 675 680 685

Leu Gln Ser Lys Ile Ala Ser Leu Pro Arg Ile Phe Thr Glu Lys Thr
690 700

Leu Thr Arg Asp Arg Asp His Pro Ser Gln His Arg Glu Thr Pro Ser 705 710 715 720

Leu Leu Lys Ile Gln Lys

251

725

<210> 195 <211> 193 <212> PRT <213> Homo sapien

<400> 195

Met Asp Ala Trp Ser Arg Arg Gly Pro Pro Thr His Thr Arg Gln Ser

Cys His Gly Glu Asn Ser Ser Val Ser Ile Leu Ala Pro Leu Val Ala

Leu Ser Tyr Thr Leu Ala Arg Asp Thr Thr Val Lys Pro Gly Ala Lys 40

Lys Asp Thr Lys Asp Ser Arg Pro Lys Leu Pro Gln Thr Leu Ser Arg 50 55

Gly Trp Gly Asp Gln Leu Ile Trp Thr Gln Thr Tyr Glu Glu Ala Leu

Tyr Lys Ser Lys Thr Ser Asn Lys Pro Leu Met Ile Ile His His Leu

Asp Glu Cys Pro His Ser Gln Ala Leu Lys Lys Val Phe Ala Glu Asn 105

Lys Glu Ile Gln Lys Leu Ala Glu Gln Phe Val Leu Leu Asn Leu Val 120

Tyr Glu Thr Thr Asp Lys His Leu Ser Pro Asp Gly Gln Tyr Val Pro 130

Arg Ile Met Phe Val Asp Pro Ser Leu Thr Val Arg Ala Asp Ile Thr 150 145

Gly Arg Tyr Ser Asn Arg Leu Tyr Ala Tyr Glu Pro Ala Asp Thr Ala 165

Leu Leu Leu Asp Asn Met Lys Lys Ala Leu Lys Leu Leu Lys Thr Glu 180 185

Leu

<210> 196 <211> 199 <212> PRT

<213> Homo sapien

<400> 196

Cys Arg Ala Ala Gln Cys Asp Gly Cys Val Val Ala Ala Arg Cys Arg

Arg Leu Thr Gln Gly Arg Val Ala Met Glu Lys Ile Pro Val Ser Ala

Phe Leu Leu Val Ala Leu Ser Tyr Thr Leu Ala Arg Asp Thr Thr 40

Val Lys Pro Gly Ala Lys Lys Asp Thr Lys Asp Ser Arg Pro Lys Leu

Pro Gln Thr Leu Ser Arg Gly Trp Gly Asp Gln Leu Ile Trp Thr Gln

Thr Tyr Glu Glu Ala Leu Tyr Lys Ser Lys Thr Ser Asn Lys Pro Leu

Met Ile Ile His His Leu Asp Glu Cys Pro His Ser Gln Ala Leu Lys 100

Lys Val Phe Ala Glu Asn Lys Glu Ile Gln Lys Leu Ala Glu Gln Phe 120

Val Leu Leu Asn Leu Val Tyr Glu Thr Thr Asp Lys His Leu Ser Pro 135

Asp Gly Gln Tyr Val Pro Arg Ile Met Phe Val Asp Pro Ser Leu Thr

Val Arg Ala Asp Ile Thr Gly Arg Tyr Ser Asn Arg Leu Tyr Ala Tyr 170

Glu Pro Ala Asp Thr Ala Leu Leu Leu Asp Asn Met Lys Lys Ala Leu 185

Lys Leu Leu Lys Thr Glu Leu

<210> 197

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253

<211> 187 <212> PRT <213> Homo sapien

<400> 197

Met Asp Arg Gly Arg Gly Gln Ser Cys His Gly Glu Asn Ser

Ser Val Ser Ile Leu Ala Pro Leu Val Ala Leu Ser Tyr Thr Leu Ala

Arg Asp Thr Thr Val Lys Pro Gly Ala Lys Lys Asp Thr Lys Asp Ser

Arg Pro Lys Leu Pro Gln Thr Leu Ser Arg Gly Trp Gly Asp Gln Leu

Ile Trp Thr Gln Thr Tyr Glu Glu Ala Leu Tyr Lys Ser Lys Thr Ser 70

Asn Lys Pro Leu Met Ile Ile His His Leu Asp Glu Cys Pro His Ser

Gln Ala Leu Lys Lys Val Phe Ala Glu Asn Lys Glu Ile Gln Lys Leu 105

Ala Glu Gln Phe Val Leu Leu Asn Leu Val Tyr Glu Thr Thr Asp Lys

His Leu Ser Pro Asp Gly Gln Tyr Val Pro Arg Ile Met Phe Val Asp 135

Pro Ser Leu Thr Val Arg Ala Asp Ile Thr Gly Arg Tyr Ser Asn Arg 145 150 155

Leu Tyr Ala Tyr Glu Pro Ala Asp Thr Ala Leu Leu Leu Asp Asn Met

Lys Lys Ala Leu Lys Leu Leu Lys Thr Glu Leu 180

<210> 198 <211> 186

<212> PRT

<213> Homo sapien

<400> 198

254

Trp Ile Val Val Ala Ala Glu Val Arg Val Ala Met Glu Lys Ile Pro

Val Ser Ala Phe Leu Leu Leu Val Ala Leu Ser Tyr Thr Leu Ala Arg

Asp Thr Thr Val Lys Pro Gly Ala Lys Lys Asp Thr Lys Asp Ser Arg

Pro Lys Leu Pro Gln Thr Leu Ser Arg Gly Trp Gly Asp Gln Leu Ile 55

Trp Thr Gln Thr Tyr Glu Glu Ala Leu Tyr Lys Ser Lys Thr Ser Asn

Lys Pro Leu Met Ile Ile His His Leu Asp Glu Cys Pro His Ser Gln 85

Ala Leu Lys Lys Val Phe Ala Glu Asn Lys Glu Ile Gln Lys Leu Ala 105 100

Glu Gln Phe Val Leu Leu Asn Leu Val Tyr Glu Thr Thr Asp Lys His

Leu Ser Pro Asp Gly Gln Tyr Val Pro Arg Ile Met Phe Val Asp Pro

Ser Leu Thr Val Arg Ala Asp Ile Thr Gly Arg Tyr Ser Asn Arg Leu 150 155

Tyr Ala Tyr Glu Pro Ala Asp Thr Ala Leu Leu Leu Asp Asn Met Lys 165 170

Lys Ala Leu Lys Leu Leu Lys Thr Glu Leu 180 185

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<222> (121)..(122) <223> x=any amino acid

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<400> 199

Ala Arg Thr Arg Glu Val Glu Ile Ala Val Ser Ala Asp Gly Asn Thr

Ala Arg Gln Ser Gly Asn Arg Ala Arg Leu His Leu Lys Lys Arg 25 30

Lys Glu Asp Ser Asp Leu Tyr Ser Gly Ile Gln Val Ser Asp Thr Thr

Ala Leu Ser Glu Asn Phe Gln Asn Phe Asn Glu Leu Thr Asp Ser Phe

Met Lys Ser Val His Gln Asp Gln Ala Glu Lys Ile Asn Asn Phe Thr

Gly Ser Ser Asn Gly Leu Tyr Glu Lys Val Leu Phe Ser Ser Ile Phe

Tyr Leu Glu Ile Leu Leu Asp Ser Leu Ile Cys Leu Val Xaa Pro Asp 100

Phe Ser Glu Thr Phe Phe Leu Phe Xaa Xaa Tyr Pro Gln Leu Thr Xaa 120 115

Asn Leu Asp Lys Ile Tyr Phe Xaa 130 135

<210> 200

<211> 92 <212> PRT

<213> Homo sapien

<220>

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256

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Tyr Val Leu Xaa Ser Gln Ile Ser Ala Lys Leu Phe Phe Xaa Leu Xaa

257

1 10 15

Ala Ile His Ser Leu Xaa Ala Ile Trp Ile Lys Tyr Thr Xaa Cys Glu 25

Xaa Lys Ile Gly Asp Ile Tyr Xaa Phe Leu Leu Tyr Val Xaa Arg Ser

Lys Thr Xaa Gly Lys Leu Phe Xaa Glu Tyr Leu Tyr Ser Tyr Gly Asn

Ile Ala Tyr Cys Thr Ser Ser Ile Lys Ile Cys Ser Leu Tyr Asp Arg

Ile His Leu Lys Thr Leu Val Ile Leu Pro Arg Leu 85

<210> 201

<211> 82 <212> PRT <213> Homo sapien

<400> 201

Met Cys Phe Leu Lys Thr Val Val Val Cys Asn Ile Lys Thr Met Asn

Leu Ile Ser Val Ser Thr Tyr Gly Phe His Glu Leu Ala Ser Leu Ser 20

His Asp Leu Leu His Gly Phe Glu Val Ile Lys Gly Leu Asp Arg Gln

Lys Gly Leu Glu Ile Phe Val Arg Leu Gln Leu Gln Ser Val Ser Asn

Leu Lys Ser Phe Leu His Val Val Lys Gln Gln Glu Leu Tyr Leu Gln 75

Val Ser

<210> 202

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258

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Gln Xaa Glu Ser Phe Leu His Val Val Xaa Gln Gln Ser Cys Ile Xaa
Arg Phe Val Ser Ile Glu Thr Ile Arg Ile Ser Ser Ser Asp Ile Gly
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Ser Asn Cys Gln Arg Trp Val Asn Xaa Asp Ile Ile Leu Gly Thr Tyr

259

50 55 60

Trp Pro Ser Gly Glu Arg Cys Cys Gln Leu Phe His Lys Pro Asp 70

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Met Glu Lys Ile Pro Val Ser Ala Phe Leu Leu Leu Val Ala Leu Ser

Tyr Thr Leu Ala Arg Asp Thr Thr Val Lys Pro Gly Ala Lys Lys Asp 20 25

Thr Lys Asp Ser Arg Pro Lys Thr Ala Pro Asp Pro Leu Gln Arg Leu 40

Gly

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Gly Asn Pro Glu Leu Pro Trp Arg Lys Phe Gln Cys Gln His Ser Cys

Ser Leu Trp Pro Ser Pro Thr Leu Trp Pro Glu Ile Pro Gln Ser Asn 25 20

Leu Glu Pro Lys Arg Thr Gln Arg Thr Leu Asp Pro Lys Leu Pro Gln 35

Thr Leu Ser Arg Gly Trp Gly Asp Gln Leu Ile Trp Thr Gln Thr Tyr 55

Glu Glu Ala Leu Tyr Lys Ser Lys Thr Ser Asn Lys Pro Leu Met Ile

Ile His His Leu Asp Glu Cys Pro His Ser Gln Ala Leu Glu Lys Val

Phe Ala Glu Asn Lys Xaa Ile Xaa Xaa Leu Ala Glu Gln Xaa Val Leu 105 100

Leu Asn Leu Val Tyr Glu Xaa Thr Asp Xaa Pro Phe Leu Leu Met Ala

Xaa Met Ser Pro Gly Leu Cys Xaa Xaa Thr His Leu 135 130

<210> 205

<211> 74

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Met Asp Arg Ala Ala Pro Gly Arg Ser Ser Arg Arg Leu Thr Gln Gly

Arg Trp Val Arg Lys Ser Arg Val Ala Met Glu Lys Ile Pro Val Ser 20 25

Ala Phe Leu Leu Val Ala Leu Ser Tyr Thr Leu Ala Arg Asp Thr

Thr Val Lys Pro Gly Ala Lys Lys Asp Thr Lys Asp Ser Arg Pro Lys

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Ser Leu Trp Pro Ser Pro Thr Leu Trp Pro Glu Ile Pro Gln Ser Asn 25

Leu Glu Pro Lys Arg Thr Gln Arg Thr Leu Asp Pro Lys Leu Pro Gln

Thr Leu Ser Arg Gly Trp Gly Asp Gln Leu Ile Trp Thr Gln Thr Tyr 55

Glu Glu Ala Leu Tyr Lys Ser Lys Thr Ser Asn Lys Pro Leu Met Ile

Ile His His Leu Asp Glu Cys Pro His Ser Gln Ala Leu Glu Lys Val

Phe Ala Glu Asn Lys Xaa Ile Xaa Xaa Leu Ala Glu Gln Xaa Val Leu 105

Leu Asn Leu Val Tyr Glu Xaa Thr Asp Xaa Pro Phe Leu Leu Met Ala 120

Xaa Met Ser Pro Gly Leu Cys Xaa Xaa Thr His Leu 135 130

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Met Asp Ser Val Val Ala Ala Glu Ala Ser Arg Arg Leu Thr Gln Gly

Arg Trp Val Arg Lys Ser Arg Val Ala Met Glu Lys Ile Pro Val Ser

Ala Phe Leu Leu Val Ala Leu Ser Tyr Thr Leu Ala Arg Asp Thr 35 40

Thr Val Lys Pro Gly Ala Lys Lys Asp Thr Lys Asp Ser Arg Pro Lys 55 Thr Ala Pro Asp Pro Leu Gln Arg Leu Gly 70 <210> 208 <211> 140 <212> PRT <213> Homo sapien <220> <221> MISC_FEATURE <222> (102)..(102) <223> x=any amino acid <220> <221> MISC_FEATURE <222> (104)..(105) <223> x=any amino acid <220> <221> MISC_FEATURE <222> (110)..(110) <223> x=any amino acid <220> <221> MISC_FEATURE <222> (119)..(119) <223> x=any amino acid <220> <221> MISC_FEATURE
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264

Ser Leu Trp Pro Ser Pro Thr Leu Trp Pro Glu Ile Pro Gln Ser Asn 25

Leu Glu Pro Lys Arg Thr Gln Arg Thr Leu Asp Pro Lys Leu Pro Gln

Thr Leu Ser Arg Gly Trp Gly Asp Gln Leu Ile Trp Thr Gln Thr Tyr

Glu Glu Ala Leu Tyr Lys Ser Lys Thr Ser Asn Lys Pro Leu Met Ile

Ile His His Leu Asp Glu Cys Pro His Ser Gln Ala Leu Glu Lys Val

Phe Ala Glu Asn Lys Xaa Ile Xaa Xaa Leu Ala Glu Gln Xaa Val Leu 100

Leu Asn Leu Val Tyr Glu Xaa Thr Asp Xaa Pro Phe Leu Leu Met Ala 115 120 125

Xaa Met Ser Pro Gly Leu Cys Xaa Xaa Thr His Leu 135

<210> 209

<211> 128 <212> PRT

<213> Homo sapien

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Met Asp Ser Val Val Ala Ala Glu Val Leu Tyr Lys Ser Lys Thr Ser

Asn Lys Pro Leu Met Ile Ile His His Leu Asp Glu Cys Pro His Ser 25

Gln Ala Leu Glu Lys Val Phe Ala Glu Asn Lys Glu Ile His Thr His 35 40

Cys Ala Glu Gln Leu Val Pro Ala Ser His Leu Val Tyr Glu Thr Ile

Val Thr Thr His Leu Ser Pro Asp Gly Gln Tyr Val Pro Arg Ile Met

265

Phe Val Asp Pro Leu Ser Asp Asn Leu Ser Arg Tyr His Leu Glu Asp 85 90

Ile Pro Ile Arg Leu Tyr Ala Tyr Glu Ser Leu Gln Ile Gln Leu Cys 100 105

Cys Leu Thr Asn Met Lys Lys Ala Phe Lys Leu Leu Lys Thr Glu Leu 115 120

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Thr Ser Asn Lys Pro Leu Met Ile Ile His His Leu Asp Glu Cys Pro

His Ser Gln Ala Leu Glu Lys Val Phe Ala Glu Asn Lys Xaa Ile Xaa

Xaa Leu Ala Glu Gln Xaa Val Leu Leu Asn Leu Val Tyr Glu Xaa Thr

Asp Xaa Pro Phe Leu Leu Met Ala Xaa Met Ser Pro Gly Leu Cys Xaa 75

Xaa Thr His Leu

<210> 211 <211> 118 <212> PRT <213> Homo sapien

<400> 211

Met Asp Trp Ser Arg Pro Arg Tyr Pro Asp Ala Thr Asp Glu Asp Ile 5

Thr Ser His Met Glu Ser Glu Glu Leu Asn Gly Ala Tyr Lys Ala Ile 20 25

Pro Val Ala Gln Asp Leu Asn Ala Pro Ser Asp Trp Asp Ser Arg Gly

Lys Asp Ser Tyr Glu Thr Ser Gln Leu Asp Asp Gln Ser Ala Glu Thr

His Ser His Lys Gln Ser Arg Leu Tyr Lys Arg Lys Ala Asn Asp Glu 75

Ser Asn Glu His Ser Asp Val Ile Asp Ser Gln Glu Leu Ser Lys Val

Ser Arg Glu Phe His Ser His Glu Phe His Ser His Glu Asp Met Leu 105

Val Val Asp Pro Gln Lys 115

267

PCT/US2004/011104

<210> 212

WO 2004/092338

<211> 117 <212> PRT <213> Homo sapien

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Trp Met Ser Arg Pro Arg Tyr Pro Asp Ala Thr Asp Glu Asp Ile Thr 1 5 10 15

Ser His Met Glu Ser Glu Glu Leu Asn Gly Ala Tyr Lys Ala Ile Pro 25 20

Val Ala Gln Asp Leu Asn Ala Pro Ser Asp Trp Asp Ser Arg Gly Lys

Asp Ser Tyr Glu Thr Ser Gln Leu Asp Asp Gln Ser Ala Glu Thr His

Ser His Lys Gln Ser Arg Leu Tyr Lys Arg Lys Ala Asn Asp Glu Ser

Asn Glu His Ser Asp Val Ile Asp Ser Gln Glu Leu Ser Lys Val Ser 85

Arg Glu Phe His Ser His Glu Phe His Ser His Glu Asp Met Leu Val

Val Asp Pro Gln Lys 115

<210> 213 <211> 75

<212> PRT

<213> Homo sapien

<400> 213

Met His Ile Gln Lys Ile Phe Val Ile Ile Thr Phe Ser Lys His Ile

Val Glu Gln Met Val Ala Phe Ile Gly Leu Glu Asp Asn Gly Ala Leu

Gln Pro Pro Pro Pro Ser Ala Val Pro Gly Ile Gly Pro Ser Leu Gln

Lys Pro Phe Gln Glu Tyr Leu Glu Ala Gln Arg Gln Lys Leu His His

268

50 55 60

Lys Ser Glu Met Gly Thr Pro Gln Val Arg Leu 70

<210> 214 <211> 143 <212> PRT

<213> Homo sapien

<400> 214

Met Arg Ser His Thr Ala Pro Gln Pro Leu Ser Gly Thr Phe Leu Asp

Leu Leu Trp Cys Asn Pro Asn Trp Lys Ser Asn Asn Lys Asn Ala Tyr 25

Pro Glu Asn Phe Cys Tyr Asn Asn Ile Gln Gln Ala His Ser Gly Ala 35

Asn Gly Gly Phe His Trp Ala Gly Gly Gln Trp Arg Thr Ala Thr Ser

Thr Ser Gln Cys Cys Pro Arg His Arg Ser Ile Ser Ala Glu Ala Ile 70

Ser Gly Val Pro Gly Gly Ser Thr Ala Glu Ala Ser Pro Gln Lys Arg

Asn Gly His Thr Thr Gly Lys Thr Leu Ile Arg Phe Leu Leu Pro Ser 105

Gly Lys Phe Arg Ala Glu Ile Thr Phe Thr Ala Leu Thr His Ile Phe 115 120

Arg Gln Ile Ser Glu Val Gly Leu Pro Val Phe Leu Asp Arg Ser

<210> 215

<211> 113

<212> PRT

<213> Homo sapien

<400> 215

Gly Asp Ser Glu Asp Pro Arg Phe Asp Pro Asp Gly Pro Gly Ser Ser

269

Thr Cys Ala Leu Ala Arg Arg Gln Leu Gly Pro Ser Gln Gly Arg 20 25 30

Ser Thr Ser Arg Cys Pro Ser Trp Arg Val Leu Cys Arg Trp Ser Gln 35 40 45

Leu Pro Ser Arg Leu Tyr Ile Leu Leu Arg Ser Gln Ser Trp Lys Met 50 55 60

Ser Ile Ser Phe Ser Ser Val Arg Trp Ala Ser Gly Ala Ser Arg Pro 65 70 75 80

Arg Ser Trp Pro Gly Val Leu Asp Thr Leu Gly Leu Ala Thr Thr Leu 85 90 95

Glu Pro Ile Glu Asn Gly Trp Arg Lys Arg Val Arg Gln Glu Ala Ala 100 105 110

Tyr

<210> 216

<211> 210

<212> PRT

<213> Homo sapien

<400> 216

Met Ala Gln Val Pro Pro Gly Thr Pro Arg Arg Gly Leu Pro Arg His 1 10 15

Gln Gly Leu Gly His Ala Thr His Leu His Gln Ala Val Phe Cys Trp 20 25 30

Val Ala Glu Gly Met Arg Ala Asp Thr Thr Cys Ser Pro Arg Val Ala 35 40 45

Val Gly Thr Ala Ala Glu Gly Leu Leu Arg Val His Met Trp Gly 50 55 60

Lys Glu Met Leu Gln Ala Pro Arg Gly Arg Ala Arg Ala Ala Leu Arg 65 70 75 80

Arg Leu Ala Val Ala Thr Arg Thr Met Ala Gly Gly Cys Arg Ala Pro 85 90 95

Ser Ser Ala Pro Thr Val Ser Leu Pro Glu Leu Arg Ser Leu Leu Ala 100 105 110

Ser Gly Arg Ala Arg Leu Phe Asp Val Arg Ser Arg Glu Glu Ala Ala 120

Ala Gly Thr Ile Pro Gly Ala Leu Asn Ile Pro Val Ser Glu Leu Glu 130 135

Ser Ala Leu Gln Met Glu Pro Ala Ala Phe Gln Ala Leu Tyr Ser Ala

Glu Lys Pro Lys Leu Glu Asp Glu His Leu Val Phe Phe Cys Gln Met

Gly Lys Arg Gly Leu Gln Ala Thr Gln Leu Ala Arg Ser Leu Gly Tyr 185

Thr Gly Ala Arg Asn Tyr Ala Gly Ala Tyr Arg Glu Trp Leu Glu Lys 195 200

Glu Ser 210

<210> 217

<211> 173 <212> PRT

<213> Homo sapien

<400> 217

Gly Gln Thr Pro Arg Val Ala Leu Gly Trp Gln Trp Ala Leu Gln Gln

Arg Gly Cys Cys Ser Glu Ser Thr Cys Gly Gly Arg Glu Met Leu Gln

Ala Pro Arg Gly Arg Ala Arg Ala Leu Arg Arg Leu Ala Val Ala

Thr Arg Thr Met Ala Gly Gly Cys Arg Ala Pro Ser Ser Ala Pro Thr 50 55 60

Val Ser Leu Pro Glu Leu Arg Ser Leu Leu Ala Ser Gly Arg Ala Arg 70

Leu Phe Asp Val Arg Ser Arg Glu Glu Ala Ala Ala Gly Thr Ile Pro

271

Gly Ala Leu Asn Ile Pro Val Ser Glu Leu Glu Ser Ala Leu Gln Met 105 110

Glu Pro Ala Ala Phe Gln Ala Leu Tyr Ser Ala Glu Lys Pro Lys Leu 115 120

Glu Asp Glu His Leu Val Phe Phe Cys Gln Met Gly Lys Arg Gly Leu 135

Gln Ala Thr Gln Leu Ala Arg Ser Leu Gly Tyr Thr Gly Ala Arg Asn

Tyr Ala Gly Ala Tyr Arg Glu Trp Leu Glu Lys Glu Ser

<210> 218 <211> 189 <212> PRT <213> Homo sapien

<400> 218

Met Ala Gln Val Pro Pro Gly Thr Pro Arg Arg Gly Leu Pro Arg His 10

Gln Gly Leu Gly His Ala Thr His Leu His Gln Ala Val Phe Cys Trp 25 20

Val Ala Glu Gly Met Arg Ala Asp Thr Thr Cys Ser Pro Arg Val Ala 40

Val Gly Thr Ala Ala Glu Gly Leu Leu Leu Arg Val His Met Trp Gly

Lys Glu Met Leu Gln Ala Pro Arg Gly Arg Ala Arg Ala Leu Arg

Arg Leu Ala Val Ala Thr Arg Thr Met Ala Gly Ala Gly Arg Ala Arg

Leu Phe Asp Val Arg Ser Arg Glu Glu Ala Ala Ala Gly Thr Ile Pro

Gly Ala Leu Asn Ile Pro Val Ser Glu Leu Glu Ser Ala Leu Gln Met

Glu Pro Ala Ala Phe Gln Ala Leu Tyr Ser Ala Glu Lys Pro Lys Leu 130 135

272

Glu Asp Glu His Leu Val Phe Phe Cys Gln Met Gly Lys Arg Gly Leu 150

Gln Ala Thr Gln Leu Ala Arg Ser Leu Gly Tyr Thr Gly Ala Arg Asn 170

Tyr Ala Gly Ala Tyr Arg Glu Trp Leu Glu Lys Glu Ser 185

<210> 219

<211> 152 <212> PRT <213> Homo sapien

<400> 219

Gly Gln Thr Pro Arg Val Ala Leu Gly Trp Gln Trp Ala Leu Gln Gln 10

Arg Gly Cys Cys Ser Glu Ser Thr Cys Gly Gly Arg Glu Met Leu Gln

Ala Pro Arg Gly Arg Ala Arg Ala Leu Arg Arg Leu Ala Val Ala 40

Thr Arg Thr Met Ala Gly Ala Gly Arg Ala Arg Leu Phe Asp Val Arg 50 55

Ser Arg Glu Glu Ala Ala Ala Gly Thr Ile Pro Gly Ala Leu Asn Ile

Pro Val Ser Glu Leu Glu Ser Ala Leu Gln Met Glu Pro Ala Ala Phe

Gln Ala Leu Tyr Ser Ala Glu Lys Pro Lys Leu Glu Asp Glu His Leu 105

Val Phe Phe Cys Gln Met Gly Lys Arg Gly Leu Gln Ala Thr Gln Leu 115 120

Ala Arg Ser Leu Gly Tyr Thr Gly Ala Arg Asn Tyr Ala Gly Ala Tyr 130

Arg Glu Trp Leu Glu Lys Glu Ser 145

273

<210> 220

<211> 105

<212> PRT

<213> Homo sapien

<400> 220

Met Leu Gln Ala Pro Arg Gly Pro Gly Arg Ala Arg Leu Phe Asp Val

Arg Ser Arg Glu Glu Ala Ala Ala Gly Thr Ile Pro Gly Ala Leu Asn 25

Ile Pro Val Ser Glu Leu Glu Ser Ala Leu Gln Met Glu Pro Ala Ala

Phe Gln Ala Leu Tyr Ser Ala Glu Lys Pro Lys Leu Glu Asp Glu His

Leu Val Phe Phe Cys Gln Met Gly Lys Arg Gly Leu Gln Ala Thr Gln

Leu Ala Arg Ser Leu Gly Tyr Thr Gly Ala Arg Asn Tyr Ala Gly Ala

Tyr Arg Glu Trp Leu Glu Lys Glu Ser 100

<210> 221 <211> 112 <212> PRT

<213> Homo sapien

<400> 221

Arg Cys Cys Arg Arg Arg Glu Asp Pro Asp Gly Pro Gly Ser Ser Thr

Cys Ala Leu Ala Arg Arg Gln Leu Gly Pro Ser Gln Gly Arg Ser

Thr Ser Arg Cys Pro Ser Trp Arg Val Leu Cys Arg Trp Ser Gln Leu 40

Pro Ser Arg Leu Tyr Ile Leu Leu Arg Ser Gln Ser Trp Lys Met Ser

Ile Ser Phe Ser Ser Val Arg Trp Ala Ser Gly Ala Ser Arg Pro Arg 70 75

274

Ser Trp Pro Gly Val Leu Asp Thr Leu Gly Leu Ala Thr Thr Leu Glu 90

Pro Ile Glu Asn Gly Trp Arg Lys Arg Val Arg Gln Glu Ala Ala Tyr 105

<210> 222 <211> 131 <212> PRT <213> Homo sapien

<400> 222

Met Ala Ala Val Thr Pro Arg Pro Pro Leu Pro Glu Gly Cys Arg Ala

Pro Ser Ser Ala Pro Thr Val Ser Leu Pro Glu Leu Arg Ser Leu Leu 20 25

Ala Ser Gly Arg Ala Arg Leu Phe Asp Val Arg Ser Arg Glu Glu Ala 35 40

Ala Ala Gly Thr Ile Pro Gly Ala Leu Asn Ile Pro Val Ser Glu Leu

Glu Ser Ala Leu Gln Met Glu Pro Ala Ala Phe Gln Ala Leu Tyr Ser

Ala Glu Lys Pro Lys Leu Glu Asp Glu His Leu Val Phe Phe Cys Gln 90

Met Gly Lys Arg Gly Leu Gln Ala Thr Gln Leu Ala Arg Ser Leu Gly 105 100

Tyr Thr Gly Ala Arg Asn Tyr Ala Gly Ala Tyr Arg Glu Trp Leu Glu 120

Lys Glu Ser 130

<210> 223

<211> 108 <212> PRT <213> Homo sapien

<400> 223

Met Val Ile Ile Cys Cys Leu Gly Ala Pro Arg Thr Gln Pro Phe Gln

Ala Gln Leu Pro Asn Leu Ser Ala Lys Leu Leu Ala Phe Pro Ser Thr 25

Leu Ser Thr Pro Pro Val Ser Glu Leu Glu Ser Ala Leu Gln Met Glu

Pro Ala Ala Phe Gln Ala Leu Tyr Ser Ala Glu Lys Pro Lys Leu Glu

Asp Glu His Leu Val Phe Phe Cys Gln Met Gly Lys Arg Gly Leu Gln

Ala Thr Gln Leu Ala Arg Ser Leu Gly Tyr Thr Gly Ala Arg Asn Tyr 90

Ala Gly Ala Tyr Arg Glu Trp Leu Glu Lys Glu Ser 105

<210> 224

<211> 132 <212> PRT <213> Homo sapien

<400> 224

Gly Lys Ala Leu Cys His Pro Gln Ile Ala Met Ala Gln Val Pro Pro

Gly Thr Pro Arg Arg Gly Leu Pro Arg His Gln Gly Leu Gly His Ala

Thr His Leu His Gln Ala Val Phe Cys Trp Val Ala Glu Gly Met Arg

Ala Asp Thr Thr Cys Ser Pro Arg Val Ala Val Gly Thr Ala Ala Glu

Gly Leu Leu Arg Val His Met Trp Gly Lys Gly Asp Val Ala Gly

Ala Glu Arg Ala Gly Gln Gly Arg Thr Pro Glu Thr Arg Gly Cys Tyr

Ala His His Gly Trp Arg Tyr Leu Arg Gly Ile Pro Gly Ala Ala Val 105

276

Leu Leu Val Leu Trp Val Glu Ala Trp Gln Gly Val Gly Trp Arg Thr 120

Lys Gly Arg Gly 130

<210> 225 <211> 162 <212> PRT <213> Homo sapien

Met Ala Gln Val Pro Pro Gly Thr Pro Arg Arg Gly Leu Pro Arg His

Gln Gly Leu Gly His Ala Thr His Leu His Gln Ala Val Phe Cys Trp

Val Ala Glu Gly Met Arg Ala Asp Thr Thr Cys Ser Pro Arg Val Ala

Val Gly Thr Ala Ala Glu Gly Leu Leu Leu Arg Val His Met Trp Gly

Lys Glu Met Leu Gln Ala Pro Arg Gly Arg Ala Arg Ala Ala Leu Arg 70 75

Arg Leu Ala Val Ala Thr Arg Thr Met Ala Gly Val Ser Glu Leu Glu

Ser Ala Leu Gln Met Glu Pro Ala Ala Phe Gln Ala Leu Tyr Ser Ala

Glu Lys Pro Lys Leu Glu Asp Glu His Leu Val Phe Phe Cys Gln Met

Gly Lys Arg Gly Leu Gln Ala Thr Gln Leu Ala Arg Ser Leu Gly Tyr

Thr Gly Ala Arg Asn Tyr Ala Gly Ala Tyr Arg Glu Trp Leu Glu Lys 155

Glu Ser

<210> 226 <211> 125

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<212> PRT

<213> Homo sapien

<400> 226

Gly Gln Thr Pro Arg Val Ala Leu Gly Trp Gln Trp Ala Leu Gln Gln

Arg Gly Cys Cys Ser Glu Ser Thr Cys Gly Gly Arg Glu Met Leu Gln

Ala Pro Arg Gly Arg Ala Arg Ala Leu Arg Arg Leu Ala Val Ala

Thr Arg Thr Met Ala Gly Val Ser Glu Leu Glu Ser Ala Leu Gln Met

Glu Pro Ala Ala Phe Gln Ala Leu Tyr Ser Ala Glu Lys Pro Lys Leu

Glu Asp Glu His Leu Val Phe Phe Cys Gln Met Gly Lys Arg Gly Leu 90

Gln Ala Thr Gln Leu Ala Arg Ser Leu Gly Tyr Thr Gly Ala Arg Asn

Tyr Ala Gly Ala Tyr Arg Glu Trp Leu Glu Lys Glu Ser 120

<210> 227

<211> 1815 <212> PRT <213> Homo sapien

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His Pro Ser Ser Thr Ser Ala Ser Phe Glu Gly Glu Cys Glu Val Arg

Gln Asp Pro Arg Ser Pro Ser Arg Phe Leu Val Phe Phe Tyr Pro Glu

Asp Val Arg Gln Lys Val Leu Glu Arg Lys Asn His Glu Leu Val Trp

Gln Gly Lys Gly Thr Phe Lys Leu Thr Val Gln Leu Pro Ala Thr Pro

65 70 75 80 Asp Glu Ile Asp His Val Phe Glu Glu Glu Leu Leu Thr Lys Glu Ser 85 90 Lys Thr Lys Glu Asp Val Lys Glu Pro Asp Val Ser Glu Glu Leu Asp 105 Thr Lys Leu Pro Leu Asp Gly Gly Leu Asp Lys Met Glu Asp Ile Pro Glu Glu Cys Glu Asn Ile Ser Ser Leu Val Ala Phe Glu Asn Leu Lys 130 135 Ala Asn Val Thr Asp Ile Met Leu Ile Leu Leu Val Glu Asn Ile Ser 150 Gly Leu Ser Asn Asp Asp Phe Gln Val Glu Ile Ile Arg Asp Phe Asp Val Ala Val Val Thr Phe Gln Lys His Ile Asp Thr Ile Arg Phe Val 185 Asp Asp Cys Thr Lys His His Ser Ile Lys Gln Leu Gln Leu Ser Pro 195 200 Arg Leu Leu Glu Val Thr Asn Thr Ile Arg Val Glu Asn Leu Pro Pro 210 215 220 Gly Ala Asp Asp Tyr Ser Leu Lys Leu Phe Phe Glu Asn Pro Tyr Asn Gly Gly Gly Arg Val Ala Asn Val Glu Tyr Phe Pro Glu Glu Ser Ser Ala Leu Ile Glu Phe Phe Asp Arg Lys Val Leu Asp Thr Ile Met Ala 265 Thr Lys Leu Asp Phe Asn Lys Met Pro Leu Ser Val Phe Pro Tyr Tyr Ala Ser Leu Gly Thr Ala Leu Tyr Gly Lys Glu Lys Pro Leu Ile Lys 290

Leu Pro Ala Pro Phe Glu Glu Ser Leu Asp Leu Pro Leu Trp Lys Phe

315

310

305

Leu Gln Lys Lys Asn His Leu Ile Glu Glu Ile Asn Asp Glu Met Arg 325 330 335

Arg Cys His Cys Glu Leu Thr Trp Ser Gln Leu Ser Gly Lys Val Thr 340 345 350

Ile Arg Pro Ala Ala Thr Leu Val Asn Glu Gly Arg Pro Arg Ile Lys 355 360 365

Thr Trp Gln Ala Asp Thr Ser Thr Thr Leu Ser Ser Ile Arg Ser Lys 370 375 380

Tyr Lys Val Asn Pro Ile Lys Val Asp Pro Thr Met Trp Asp Thr Ile 385 390 395 400

Lys Asn Asp Val Lys Asp Asp Arg Ile Leu Ile Glu Phe Asp Thr Leu 405 410 415

Lys Glu Met Val Ile Leu Ala Gly Lys Ser Glu Asp Val Gln Ser Ile 420 425 430

Glu Val Gln Val Arg Glu Leu Ile Glu Ser Thr Thr Gln Lys Ile Lys 435 440 445

Arg Glu Glu Gln Ser Leu Lys Glu Lys Met Ile Ile Ser Pro Gly Arg 450 455 460

Tyr Phe Leu Leu Cys His Ser Ser Leu Leu Asp His Leu Leu Thr Glu 465 470 475 480

Cys Pro Glu Ile Glu Ile Cys Tyr Asp Arg Val Thr Gln His Leu Cys 485 490 495

Leu Lys Gly Pro Ser Ala Asp Val Tyr Lys Ala Lys Cys Glu Ile Gln 500 505 510

Glu Lys Val Tyr Thr Met Ala Gln Lys Asn Ile Gln Val Ser Pro Glu 515 520 525

Ile Phe Gln Phe Leu Gln Gln Val Asn Trp Lys Glu Phe Ser Lys Cys 530 540

Leu Phe Ile Ala Gln Lys Ile Leu Ala Leu Tyr Glu Leu Glu Gly Thr 545 550 555 556

Thr Val Leu Leu Thr Ser Cys Ser Ser Glu Ala Leu Leu Glu Ala Glu 565 570 575

Lys Gln Met Leu Ser Ala Leu Asn Tyr Lys Arg Ile Glu Val Glu Asn 580 585 590

Lys Glu Val Leu His Gly Lys Lys Trp Lys Gly Leu Thr His Asn Leu 595 600 605

Leu Lys Lys Gln Asn Ser Ser Pro Asn Thr Val Ile Ile Asn Glu Leu 610 615 620

Thr Ser Glu Thr Thr Ala Glu Val Ile Ile Thr Gly Cys Val Lys Glu 625 630 635 640

Val Asn Glu Thr Tyr Lys Leu Leu Phe Asn Phe Val Glu Gln Asn Met 645 650 655

Lys Ile Glu Arg Leu Val Glu Val Lys Pro Ser Leu Val Ile Asp Tyr
660 665 670

Leu Lys Thr Glu Lys Lys Leu Phe Trp Pro Lys Ile Lys Lys Val Asn 675 680 685

Val Gln Val Ser Phe Asn Pro Glu Asn Lys Gln Lys Gly Ile Leu Leu 690 695 700

Thr Gly Ser Lys Thr Glu Val Leu Lys Ala Val Asp Ile Val Lys Gln 705 710 715 720

Val Trp Asp Ser Val Cys Val Lys Ser Val His Thr Asp Lys Pro Gly
725 730 735

Ala Lys Gln Phe Phe Gln Asp Lys Ala Arg Phe Tyr Gln Ser Glu Ile 740 745 750

Lys Arg Leu Phe Gly Cys Tyr Ile Glu Leu Gln Glu Asn Glu Val Met 755 760 765

Lys Glu Gly Gly Ser Pro Ala Gly Gln Lys Cys Phe Ser Arg Thr Val 770 780

Leu Ala Pro Gly Val Val Leu Ile Val Gln Gln Gly Asp Leu Ala Arg
785 790 795 800

281

Leu Pro Val Asp Val Val Asn Ala Ser Asn Glu Asp Leu Lys His
805 810 815

Tyr Gly Gly Leu Ala Ala Leu Ser Lys Ala Ala Gly Pro Glu Leu 820 825 830

Gln Ala Asp Cys Asp Gln Ile Val Lys Arg Glu Gly Arg Leu Leu Pro 835 840 845

Gly Asn Ala Thr Ile Ser Lys Ala Gly Lys Leu Pro Tyr His His Val 850 855 860

Ile His Ala Val Gly Pro Arg Trp Ser Gly Tyr Glu Ala Pro Arg Cys 865 870 875 886

Val Tyr Leu Leu Arg Arg Ala Val Gln Leu Ser Leu Cys Leu Ala Glu 885 890 895

Lys Tyr Lys Tyr Arg Ser Ile Ala Ile Pro Ala Ile Ser Ser Gly Val $900 \\ \hspace*{0.2in} 905 \\ \hspace*{0.2in} 910$ 

Phe Gly Phe Pro Leu Gly Arg Cys Val Glu Thr Ile Val Ser Ala Ile 915 920 925

Lys Glu Asn Phe Gln Phe Lys Lys Asp Gly His Cys Leu Lys Glu Ile 930 935 940

Tyr Leu Val Asp Val Ser Glu Lys Thr Val Glu Ala Phe Ala Glu Ala 945 950 955 960

Val Lys Thr Val Phe Lys Ala Thr Leu Pro Asp Thr Ala Ala Pro Pro 965 970 975

Gly Leu Pro Pro Ala Ala Gly Pro Gly Lys Thr Ser Trp Glu Lys 980 985 990

Gly Ser Leu Val Ser Pro Gly Gly Leu Gln Met Leu Leu Val Lys Glu 995 1000 1005

Gly Val Gln Asn Ala Lys Thr Asp Val Val Val Asn Ser Val Pro 1010 1015 1020

Leu Asp Leu Val Leu Ser Arg Gly Pro Leu Ser Lys Ser Leu Leu 1025 1030 1035

Glu Lys Ala Gly Pro Glu Leu Gln Glu Glu Leu Asp Thr Val Gly

		1040					1045					1050			
•	Gln	Gly 1055	Val	Ala	Val	Ser	Met 1060		Thr	Val	Leu	Lys 1065	Thr	Ser	Ser
	Trp	Asn 1070	Leu	Asp	Сув	Arg	Tyr 1075	Val	Leu	His	Val	Val 1080	Ala	Pro	Glu
•	Trp	Arg 1085	Asn	Gly	Ser	Thr	Ser 1090	Ser	Leu	Lys	Ile	Met 1095	Glu	Asp	Ile
	Ile	Arg 1100	Glu	Cys	Met	Glu	Ile 1105	Thr	Glu	Ser	Leu	Ser 1110	Leu	Lys	Ser
	Ile	Ala 1115	Phe	Pro	Ala	Ile	Gly 1120		Gly	Asn	Leu	Gly 1125	Phe	Pro	Lys
•	Asn	Ile 1130	Phe	Ala	Glu	Leu	Ile 1135	Ile	Ser	Glu	Val	Phe 1140	Lys	Phe	Ser
	Ser	Lys 1145	Asn	Gln	Leu	Lys	Thr 1150		Gln	Glu	Val	His 1155	Phe	Leu	Leu
:	His	Pro 1160	Ser	Авр	His		Asn 1165		Gln	Ala	Phe	Ser 1170	Asp	Glu	Phe
	Ala	Arg 1175	Arg	Ala	Asn		Asn 1180		Val	Ser	Asp	Lys 1185	Ile	Pro	Lys
	Ala	Lys 1190	Asp	Thr	Gln	Gly	Phe 1195	Tyr	Gly	Thr	Val	Ser 1200	Ser	Pro	Asp
	Ser	Gly 1205	Val	Туг	Glu	Met	Lys 1210		Gly	Ser	Ile	Ile 1215	Phe	Gln	Val
	Ala	Ser 1220	Gly	Asp	Ile	Thr	Lys 1225		Glu	Ala	Asp	Val 1230	Ile	Val	Asn
	Ser	Thr 1235	Ser	Asn	Ser	Phe	Asn 1240	Leu	Lys	Ala	Gly	Val 1245	Ser	Lys	Ala
	Ile	Leu 1250	Glu	Cys	Ala	Gly	Gln 1255	Asn	Val	Glu	Arg	Glu 1260	Сув	Ser	Gln
	Gln	Ala 1265	Gln	Gln	Arg	Lys	Asn 1270	Asp	Tyr	Ile	Ile	Thr 1275	Gly	Gly	Gly

Phe Leu Arg Cys Lys Asn Ile Ile His Val Ile Gly Gly Asn Asp 1280 1285 1290

- Val Lys Ser Ser Val Ser Ser Val Leu Gln Glu Cys Glu Lys Lys 1295 1300 1305
- Asn Tyr Ser Ser Ile Cys Leu Pro Ala Ile Gly Thr Gly Asn Ala
- Lys Gln His Pro Asp Lys Val Ala Glu Ala Ile Ile Asp Ala Ile 1325 1330 1335
- Glu Asp Phe Val Gln Lys Gly Ser Ala Gln Ser Val Lys Lys Val 1340 1345 1350
- Lys Val Val Ile Phe Leu Pro Gln Val Leu Asp Val Phe Tyr Ala 1355 1360 1365
- Asn Met Lys Lys Arg Glu Gly Thr Gln Leu Ser Ser Gln Gln Ser 1370 1375 1380
- Val Met Ser Lys Leu Ala Cys Glu Phe Phe Val Phe Met Lys Cys 1385 1390 1395
- Met Phe Ile Thr Leu Met Ser His Val Lys Tyr Leu Ile Phe Leu 1400 1410
- Phe Phe Leu Ala Phe Leu Gly Phe Ser Lys Gln Ser Pro Gln Lys 1415 1420 1425
- Lys Asn His Leu Val Leu Glu Lys Lys Thr Glu Ser Ala Thr Phe 1430 1435 1440
- Arg Val Cys Gly Glu Asn Val Thr Cys Val Glu Tyr Ala Ile Ser 1445 1450 1455
- Trp Leu Gln Asp Leu Ile Glu Lys Glu Gln Cys Pro Tyr Thr Ser 1460 1465 1470
- Glu Asp Glu Cys Ile Lys Asp Phe Asp Glu Lys Glu Tyr Gln Glu 1475 1480 1485
- Leu Asn Glu Leu Gln Lys Lys Leu Asn Ile Asn Ile Ser Leu Asp 1490 1495 1500

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•	His	Lys 1505	Arg	Pro	Leu	Ile	Lys 1510	Val	Leu	Gly	Ile	Ser 1515	Arg	Asp	Val
	Met	Gln 1520	Ala	Arg	Asp	Glu	Ile 1525	Glu	Ala	Met	Ile	Lys 1530	Arg	Val	Arg
	Leu	Ala 1535	Lys	Glu	Gln	Glu	Ser 1540	Arg	Ala	Asp	Cys	Ile 1545	Ser	Glu	Phe
	Ile	Glu 1550	Trp	Gln	Tyr	Asn	Asp 1555	Asn	Asn	Thr	Ser	His 1560	Сув	Phe	Asn
	Lys	Met 1565	Thr	Asn	Leu	-	Leu 1570	Glu	Asp	Ala	Arg	Arg 1575	Glu	Lys	Lys
	Lys	Thr 1580	Val	Asp	Val		Ile 1585	Asn	His	Arg	His	Tyr 1590	Thr	Val	Asn
	Leu	Asn 1595	Thr	туг	Thr	Ala	Thr 1600	Asp	Thr	Lys	Gly	His 1605	Ser	Leu	Ser
	Val	Gln 1610	Arg	Leu	Thr	Lys	Ser 1615	Lys	Val	Asp	Ile	Pro 1620	Ala	His	Trp
	Ser	Asp 1625	Met	Lys	Gln	Gln	Asn 1630	Phe	Сув	Val	Val	Glu 1635	Leu	Leu	Pro
	Ser	Asp 1640	Pro	Glu	туг	Asn	Thr 1645	Val	Ala	Ser	Lys	Phe 1650	Asn	Gln	Thr
	Cys	Ser 1655	His	Phe	Arg		Glu 1660	Lys	Ile	Glu	Arg	Ile 1665	Gln	Asn	Pro
	Asp	Leu 1670	Trp	Asn	Ser	Tyr	Gln 1675	Ala	Lys	Lys	Lys	Thr 1680	Met	Asp	Ala
	Lys	Asn 1685	Gly	Gln	Thr	Met	Asn 1690	Glu	Lys	Gln	Leu	Phe 1695	His	Gly	Thr
	Asp	Ala 1700	Gly	Ser	Val	Pro	His 1705	Val	Asn	Arg	Asn	Gly 1710	Phe	Asn	Arg
	Ser	Tyr 1715	Ala	Gly	Lys	Asn	Ala 1720	Val	Ala	Tyr	Gly	Lys 1725	Gly	Thr	Tyr

285

Phe Ala Val Asn Ala Asn Tyr Ser Ala Asn Asp Thr Tyr Ser Arg 1735

Pro Asp Ala Asn Gly Arg Lys His Val Tyr Tyr Val Arg Val Leu 1745 1750

Thr Gly Ile Tyr Thr His Gly Asn His Ser Leu Ile Val Pro Pro 1770 1760 1765

Ser Lys Asn Pro Gln Asn Pro Thr Asp Leu Tyr Asp Thr Val Thr 1780 1785

Asp Asn Val His His Pro Ser Leu Phe Val Ala Phe Tyr Asp Tyr 1795

Gln Ala Tyr Pro Glu Tyr Leu Ile Thr Phe Arg Lys 1810

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<400> 228

Met Asn Ser Leu Ile Tyr Asn Val Ser Asn Tyr Gln Ser Phe Ile Val 10

His Pro Ser Ser Thr Ser Ala Ser Phe Glu Gly Glu Cys Glu Val Arg 20 25

Gln Asp Pro Arg Ser Pro Ser Arg Phe Leu Val Phe Phe Tyr Pro Glu

Asp Val Arg Gln Lys Val Leu Glu Arg Lys Asn His Glu Leu Val Trp

Gln Gly Lys Gly Thr Phe Lys Leu Thr Val Gln Leu Pro Ala Thr Pro

Asp Glu Ile Asp His Val Phe Glu Glu Glu Leu Leu Thr Lys Glu Ser

Lys Thr Lys Glu Asp Val Lys Glu Pro Asp Val Ser Glu Glu Leu Asp

Thr Lys Leu Pro Leu Asp Gly Gly Leu Asp Lys Met Glu Asp Ile Pro 115 120

286

Glu Glu Cys Glu Asn Ile Ser Ser Leu Val Ala Phe Glu Asn Leu Lys 130 140

Ala Asn Val Thr Asp Ile Met Leu Ile Leu Leu Val Glu Asn Ile Ser

Gly Leu Ser Asn Asp Asp Phe Gln Val Glu Ile Ile Arg Asp Phe Asp 165 170 175

Val Ala Val Val Thr Phe Gln Lys His Ile Asp Thr Ile Arg Phe Val

Asp Asp Cys Thr Lys His His Ser Ile Lys Gln Leu Gln Leu Ser Pro 195 200 205

Arg Leu Leu Glu Val Thr Asn Thr Ile Arg Val Glu Asn Leu Pro Pro 210 215 220

Gly Ala Asp Asp Tyr Ser Leu Lys Leu Phe Phe Glu Asn Pro Tyr Asn 225 230 235 240

Gly Gly Gly Arg Val Ala Asn Val Glu Tyr Phe Pro Glu Glu Ser Ser 245 250 255

Ala Leu Ile Glu Phe Phe Asp Arg Lys Val Leu Asp Thr Ile Met Ala 260 265 270

Thr Lys Leu Asp Phe Asn Lys Met Pro Leu Ser Val Phe Pro Tyr Tyr 275 280 285

Ala Ser Leu Gly Thr Ala Leu Tyr Gly Lys Glu Lys Pro Leu Ile Lys 290 295 300

Leu Pro Ala Pro Phe Glu Glu Ser Leu Asp Leu Pro Leu Trp Lys Phe 305 310 315 320

Leu Gln Lys Lys Asn His Leu Ile Glu Glu Ile Asn Asp Glu Met Arg 325 330 335

Arg Cys His Cys Glu Leu Thr Trp Ser Gln Leu Ser Gly Lys Val Thr 340 345 350

Ile Arg Pro Ala Ala Thr Leu Val Asn Glu Gly Arg Pro Arg Ile Lys

Thr Trp Gln Ala Asp Thr Ser Thr Thr Leu Ser Ser Ile Arg Ser Lys 370 375 380

Tyr Lys Val Asn Pro Ile Lys Val Asp Pro Thr Met Trp Asp Thr Ile 385 390 395 400

Lys Asn Asp Val Lys Asp Asp Arg Ile Leu Ile Glu Phe Asp Thr Leu 405 410 415

Lys Glu Met Val Ile-Leu Ala Gly Lys Ser Glu Asp Val Gln Ser Ile 420 425 430

Glu Val Gln Val Arg Glu Leu Ile Glu Ser Thr Thr Gln Lys Ile Lys
435
440
445

Arg Glu Glu Gln Ser Leu Lys Glu Lys Met Ile Ile Ser Pro Gly Arg 450 455 460

Tyr Phe Leu Leu Cys His Ser Ser Leu Leu Asp His Leu Leu Thr Glu 465 470 475 480

Cys Pro Glu Ile Glu Ile Cys Tyr Asp Arg Val Thr Gln His Leu Cys 485 490 495

Leu Lys Gly Pro Ser Ala Asp Val Tyr Lys Ala Lys Cys Glu Ile Gln 500 505 510

Glu Lys Val Tyr Thr Met Ala Gln Lys Asn Ile Gln Val Ser Pro Glu 515 520 525

Ile Phe Gln Phe Leu Gln Gln Val Asn Trp Lys Glu Phe Ser Lys Cys 530 535

Leu Phe Ile Ala Gln Lys Ile Leu Ala Leu Tyr Glu Leu Glu Gly Thr 545 550 555 560

Thr Val Leu Leu Thr Ser Cys Ser Ser Glu Ala Leu Leu Glu Ala Glu
565 570 575

Lys Gln Met Leu Ser Ala Leu Asn Tyr Lys Arg Ile Glu Val Glu Asn 580 585 590

Lys Glu Val Leu His Gly Lys Lys Trp Lys Gly Leu Thr His Asn Leu 595 600 605

288

Leu Lys Lys Gln Asn Ser Ser Pro Asn Thr Val Ile Ile Asn Glu Leu 610 615 620

Thr Ser Glu Thr Thr Ala Glu Val Ile Ile Thr Gly Cys Val Lys Glu 625 630 635 640

Val Asn Glu Thr Tyr Lys Leu Leu Phe Asn Phe Val Glu Gln Asn Met 645 650 655

Lys Ile Glu Arg Leu Val Glu Val Lys Pro Ser Leu Val Ile Asp Tyr 660 665 670

Leu Lys Thr Glu Lys Lys Leu Phe Trp Pro Lys Ile Lys Lys Val Asn 675 680 685

Val Gln Val Ser Phe Asn Pro Glu Asn Lys Gln Lys Gly Ile Leu Leu 690 695 700

Thr Gly Ser Lys Thr Glu Val Leu Lys Ala Val Asp Ile Val Lys Gln 705 710 715 720

Val Trp Asp Ser Val Cys Val Lys Ser Val His Thr Asp Lys Pro Gly
725 730 735

Ala Lys Gln Phe Phe Gln Asp Lys Ala Arg Phe Tyr Gln Ser Glu Ile 740 745 750

Lys Arg Leu Phe Gly Cys Tyr Ile Glu Leu Gln Glu Asn Glu Val Met 755 760 765

Lys Glu Gly Gly Ser Pro Ala Gly Gln Lys Cys Phe Ser Arg Thr Val 770 775 780

Leu Ala Pro Gly Val Val Leu Ile Val Gln Gln Gly Asp Leu Ala Arg
785 790 795 800

Leu Pro Val Asp Val Val Val Asn Ala Ser Asn Glu Asp Leu Lys His
805 810 815

Tyr Gly Gly Leu Ala Ala Ala Leu Ser Lys Ala Ala Gly Pro Glu Leu
820 825 830

Gln Ala Asp Cys Asp Gln Ile Val Lys Arg Glu Gly Arg Leu Leu Pro 835 840 845

Gly Asn Ala Thr Ile Ser Lys Ala Gly Lys Leu Pro Tyr His His Val

850 855 860

Ile His Ala Val Gly Pro Arg Trp Ser Gly Tyr Glu Ala Pro Arg Cys 865 870 875 880

Val Tyr Leu Leu Arg Arg Ala Val Gln Leu Ser Leu Cys Leu Ala Glu 885 890 895

Lys Tyr Lys Tyr Arg Ser Ile Ala Ile Pro Ala Ile Ser Ser Gly Val 900 905 910

Phe Gly Phe Pro Leu Gly Arg Cys Val Glu Thr Ile Val Ser Ala Ile 915 920 925

Lys Glu Asn Phe Gln Phe Lys Lys Asp Gly His Cys Leu Lys Glu Ile 930 935 940

Tyr Leu Val Asp Val Ser Glu Lys Thr Val Gly Pro Leu Gln Met Leu 945 950 955 960

Leu Val Lys Glu Gly Val Gln Asn Ala Lys Thr Asp Val Val Val Asn 965 970 975

Ser Val Pro Leu Asp Leu Val Leu Ser Arg Gly Pro Leu Ser Lys Ser 980 985 990

Leu Leu Glu Lys Ala Gly Pro Glu Leu Gln Glu Glu Leu Asp Thr Val 995 1000 1005

Gly Gln Gly Val Ala Val Ser Met Gly Thr Val Leu Lys Thr Ser

Ser Trp Asn Leu Asp Cys Arg Tyr Val Leu His Val Val Ala Pro 1025 1030 1035

Glu Trp Arg Asn Gly Ser Thr Ser Ser Leu Lys Ile Met Glu Asp 1040 1045 1050

Ile Ile Arg Glu Cys Met Glu Ile Thr Glu Ser Leu Ser Leu Lys 1055 1060 1065

Ser Ile Ala Phe Pro Ala Ile Gly Thr Gly Asn Leu Gly Phe Pro 1070 1080

Lys Asn Ile Phe Ala Glu Leu Ile Ile Ser Glu Val Phe Lys Phe 1085 1095

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Ser	Ser 1100		Asn	Gln	Leu	Lys 1105		Leu	Gln	Glu	Val 1110	His	Phe	Leu
Leu	His 1115	Pro	Ser	Asp	His	Glu 1120	Asn	Ile	Gln		Phe 1125	Ser	Asp	Glu
Phe	Ala 1130	Arg	Arg	Ala	Asn	Gly 1135	Asn	Leu	Val	Ser	Asp 1140	Lys	Ile	Pro
Lys	Ala 1145	Lys	Asp	Thr	Gln	Gly 1150	Phe	Tyr	Gly	Thr	Val 1155	Ser	Ser	Pro
Asp	Ser 1160	-	Val	туг	Glu	Met 1165	_	Ile	Gly	Ser	Ile 1170	Ile	Phe	Gln
Val	Ala 1175	Ser	Gly	Asp	Ile	Thr 1180		Glu	Glu	Ala	Asp 1185	Val	Ile	Val
Asn	Ser 1190	Thr	Ser	Asn	Ser	Phe 1195	Asn	Leu	Lys	Ala	Gly 1200	Val	Ser	Lys
Ala	Ile 1205	Leu	Glu	Cya		Gly 1210		Asn	Val		Arg 1215	Glu	Сув	Ser
Gln	Gln 1220	Ala	Gln	Gln		Lys 1225		Asp	Tyr	Ile	Ile 1230	Thr	Gly	Gly
Gly	Phe 1235	Leu	Arg	Cys	Lys	Asn 1240	Ile	Ile	His	Val	Ile 1245	Gly	Gly	Asn
Asp	Val 1250	Lys	Ser	Ser	Val	Ser 1255	Ser	Val	Leu	Gln	Glu 1260	Cys	Glu	Lys
Lys	Asn 1265	Tyr	Ser	Ser	Ile	Сув 1270		Pro	Ala	Ile	Gly 1275	Thr	Gly	Asn
Ala	Lys 1280	Gln	His	Pro	Asp	Lys 1285	Val	Ala	Glu	Ala	Ile 1290	Ile	Asp	Ala
Ile	Glu 1295	Asp	Phe	Val	Gln	Lys 1300	Gly	Ser	Ala	Gln	Ser 1305	Val	Lys	Lys
Val	Lys 1310	Val	Val	Ile	Phe	Leu 1315	Pro	Gln	Val	Leu	Asp 1320	Val	Phe	Tyr

Ala	Asn 1325	Met	Lys	Lys	Arg	Glu 1330	Gly	Thr	Gln	Leu	Ser 1335	Ser	Gln	Gln
Ser	Val 1340	Met	Ser	Lys		Ala 1345	Ser	Phe	Leu	Gly	Phe 1350	Ser	Lys	Gln
Ser	Pro 1355		Lys	Lys		His 1360		Val	Leu	Glu	Lys 1365	Lys	Thr	Glu
Ser	Ala 1370		Phe	Arg		Cys 1375	Gly	Glu	Asn		Thr 1380	Сув	Val	Glu
Tyr	Ala 1385	Ile	Ser	Trp		Gln 1390	Asp	Leu	Ile	Glu	Lys 1395	Glu	Gln	Сув
Pro	Tyr 1400	Thr	Ser	Glu	Asp	Glu 1405	Cys	Ile	Lys	Asp	Phe 1410	Asp	Glu	Lys
Glu	Tyr 1415	Gln	Glu	Leu	Asn	Glu 1420	Leu	Gln	Lys	Lys	Leu 1425	Asn	Ile	Asn
Ile	Ser 1430	Leu	Asp	His		Arg 1435	Pro	Leu	Ile	Lys	Val 1440	Leu	Gly	Ile
Ser	Arg 1445	Asp	Val	Met	Gln	Ala 1450	Arg	Asp	Glu	Ile	Glu 1455	Ala	Met	Ile
Lys	Arg 1460		Arg	Leu		Lys 1465	Glu	Gln	Glu	Ser	<b>Ar</b> g 1470	Ala	Asp	Сув
Ile	Ser 1475	Glu	Phe	Ile		Trp 1480	Gln	туг	Asn	Asp	Asn 1485	Asn	Thr	Ser
His	Cys 1490	Phe	Asn	Lys	Met	Thr 1495	Asn	Leu	Lys	Leu	Glu 1500	Asp	Ala	Arg
Arg	Glu 1505		Lys	Lys	Thr	Val 1510	Asp	Val	Lys	Ile	Asn 1515	His	Arg	His
Tyr	Thr 1520		Asn	Leu	Asn	Thr 1525	Tyr	Thr	Ala	Thr	Asp 1530		Lys	Gly
His	Ser 1535		Ser	Val	Gln	Arg 1540	Leu	Thr	Lys	Ser	Lys 1545	Val	Asp	Ile

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Pro Ala His Trp Ser Asp Met Lys Gln Gln Asn Phe Cys Val Val 1555

Glu Leu Leu Pro Ser Asp Pro Glu Tyr Asn Thr Val Ala Ser Lys 1565 1570

Phe Asn Gln Thr Cys Ser His Phe Arg Ile Glu Lys Ile Glu Arg 1590 1580 1585

Ile Gln Asn Pro Asp Leu Trp Asn Ser Tyr Gln Ala Lys Lys 1600 1595 1605

Thr Met Asp Ala Lys Asn Gly Gln Thr Met Asn Glu Lys Gln Leu 1620

Phe His Gly Thr Asp Ala Gly Ser Val Pro His Val Asn Arg Asn 1635

Gly Phe Asn Arg Ser Tyr Ala Gly Lys Asn Ala Val Ala Tyr Gly 1645 1650 1640

Lys Gly Thr Tyr Phe Ala Val Asn Ala Asn Tyr Ser Ala Asn Asp

Thr Tyr Ser Arg Pro Asp Ala Asn Gly Arg Lys His Val Tyr Tyr 1675

Val Arg Val Leu Thr Gly Ile Tyr Thr His Gly Asn His Ser Leu 1690

Ile Val Pro Pro Ser Lys Asn Pro Gln Asn Pro Thr Asp Leu Tyr 1700 1705 1710

Asp Thr Val Thr Asp Asn Val His His Pro Ser Leu Phe Val Ala 1715 1720 1725

Phe Tyr Asp Tyr Gln Ala Tyr Pro Glu Tyr Leu Ile Thr Phe Arg

Lys

<210> 229

<211> 968

<212> PRT <213> Homo sapien

293

<400> 229

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Pro Ser Ser Thr Ser Ala Ser Phe Glu Gly Glu Cys Glu Val Arg Gln
20 25 30

Asp Pro Arg Ser Pro Ser Arg Phe Leu Val Phe Phe Tyr Pro Glu Asp 35 40 45

Val Arg Gln Lys Val Leu Glu Arg Lys Asn His Glu Leu Val Trp Gln 50 55 60

Gly Lys Gly Thr Phe Lys Leu Thr Val Gln Leu Pro Ala Thr Pro Asp 65 70 75 80

Glu Ile Asp His Val Phe Glu Glu Glu Leu Leu Thr Lys Glu Ser Lys 85 90 95

Thr Lys Glu Asp Val Lys Glu Pro Asp Val Ser Glu Glu Leu Asp Thr 100 105 110

Lys Leu Pro Leu Asp Gly Gly Leu Asp Lys Met Glu Asp Ile Pro Glu 115 120 125

Glu Cys Glu Asn Ile Ser Ser Leu Val Ala Phe Glu Asn Leu Lys Ala

Asn Val Thr Asp Ile Met Leu Ile Leu Leu Val Glu Asn Ile Ser Gly 145 150 155 160

Leu Ser Asn Asp Asp Phe Gln Val Glu Ile Ile Arg Asp Phe Asp Val
165 170 175

Ala Val Val Thr Phe Gln Lys His Ile Asp Thr Ile Arg Phe Val Asp 180 185 190

Asp Cys Thr Lys His His Ser Ile Lys Gln Leu Gln Leu Ser Pro Arg 195 200 205

Leu Leu Glu Val Thr Asn Thr Ile Arg Val Glu Asn Leu Pro Pro Gly 210 215 220

Ala Asp Asp Tyr Ser Leu Lys Leu Phe Phe Glu Asn Pro Tyr Asn Gly 225 230 235

Gly Gly Arg Val Ala Asn Val Glu Tyr Phe Pro Glu Glu Ser Ser Ala 245 250 255

Leu Ile Glu Phe Phe Asp Arg Lys Val Leu Asp Thr Ile Met Ala Thr 260 265 270

Lys Leu Asp Phe Asn Lys Met Pro Leu Ser Val Phe Pro Tyr Tyr Ala 275 280 285

Ser Leu Gly Thr Ala Leu Tyr Gly Lys Glu Lys Pro Leu Ile Lys Leu 290 295 300

Pro Ala Pro Phe Glu Glu Ser Leu Asp Leu Pro Leu Trp Lys Phe Leu 305 310 315 320

Gln Lys Lys Asn His Leu Ile Glu Glu Ile Asn Asp Glu Met Arg Arg 325 330 335

Cys His Cys Glu Leu Thr Trp Ser Gln Leu Ser Gly Lys Val Thr Ile 340 345 350

Arg Pro Ala Ala Thr Leu Val Asn Glu Gly Arg Pro Arg Ile Lys Thr 355 360 365

Trp Gln Ala Asp Thr Ser Thr Thr Leu Ser Ser Ile Arg Ser Lys Tyr 370 375 380

Lys Val Asn Pro Ile Lys Val Asp Pro Thr Met Trp Asp Thr Ile Lys 385 390 395 400

Asn Asp Val Lys Asp Asp Arg Ile Leu Ile Glu Phe Asp Thr Leu Lys 405 410 415

Glu Met Val Ile Leu Ala Gly Lys Ser Glu Asp Val Gln Ser Ile Glu 420 425 430

Val Gln Val Arg Glu Leu Ile Glu Ser Thr Thr Gln Lys Ile Lys Arg
435 440 445

Glu Glu Gln Ser Leu Lys Glu Lys Met Ile Ile Ser Pro Gly Arg Tyr 450 455 460

Phe Leu Leu Cys His Ser Ser Leu Leu Asp His Leu Leu Thr Glu Cys 465 470 475 480

295

Pro Glu Ile Glu Ile Cys Tyr Asp Arg Val Thr Gln His Leu Cys Leu 485 490 495

Lys Gly Pro Ser Ala Asp Val Tyr Lys Ala Lys Cys Glu Ile Gln Glu 500 505 510

Lys Val Tyr Thr Met Ala Gln Lys Asn Ile Gln Val Ser Pro Glu Ile 515 520 525

Phe Gln Phe Leu Gln Gln Val Asn Trp Lys Glu Phe Ser Lys Cys Leu 530 535 540

Phe Ile Ala Gln Lys Ile Leu Ala Leu Tyr Glu Leu Glu Gly Thr Thr 545 550 . 555 560

Val Leu Leu Thr Ser Cys Ser Ser Glu Ala Leu Leu Glu Ala Glu Lys
565 570 575

Gln Met Leu Ser Ala Leu Asn Tyr Lys Arg Ile Glu Val Glu Asn Lys 580 585 590

Glu Val Leu His Gly Lys Lys Trp Lys Gly Leu Thr His Asn Leu Leu 595 600 605

Lys Lys Gln Asn Ser Ser Pro Asn Thr Val Ile Ile Asn Glu Leu Thr 610 615 620

Ser Glu Thr Thr Ala Glu Val Ile Ile Thr Gly Cys Val Lys Glu Val 625 635 640

Asn Glu Thr Tyr Lys Leu Leu Phe Asn Phe Val Glu Gln Asn Met Lys 645 650 655

Ile Glu Arg Leu Val Glu Val Lys Pro Ser Leu Val Ile Asp Tyr Leu 660 665 670

Lys Thr Glu Lys Lys Leu Phe Trp Pro Lys Ile Lys Lys Val Asn Val 675 680 685

Gln Val Ser Phe Asn Pro Glu Asn Lys Gln Lys Gly Ile Leu Leu Thr 690 695 700

Gly Ser Lys Thr Glu Val Leu Lys Ala Val Asp Ile Val Lys Gln Val 705 710 715 720

Trp Asp Ser Val Cys Val Lys Ser Val His Thr Asp Lys Pro Gly Ala

296

725 730 735

Lys Gln Phe Phe Gln Asp Lys Ala Arg Phe Tyr Gln Ser Glu Ile Lys
740 745 750

Arg Leu Phe Gly Cys Tyr Ile Glu Leu Gln Glu Asn Glu Val Met Lys 755 760 765

Glu Gly Gly Ser Pro Ala Gly Gln Lys Cys Phe Ser Arg Thr Val Leu 770 775 780

Ala Pro Gly Val Val Leu Ile Val Gln Gln Gly Asp Leu Ala Arg Leu 785 790 795 800

Pro Val Asp Val Val Val Asn Ala Ser Asn Glu Asp Leu Lys His Tyr 805 810 815

Gly Gly Leu Ala Ala Ala Leu Ser Lys Ala Ala Gly Pro Glu Leu Gln 820 825 830

Ala Asp Cys Asp Gln Ile Val Lys Arg Glu Gly Arg Leu Leu Pro Gly 835 840 845

Asn Ala Thr Ile Ser Lys Ala Gly Lys Leu Pro Tyr His His Val Ile 850 860

His Ala Val Gly Pro Arg Trp Ser Gly Tyr Glu Ala Pro Arg Cys Val 865 870 875 880

Tyr Leu Leu Arg Arg Ala Val Gln Leu Ser Leu Cys Leu Ala Glu Lys 885 890 895

Tyr Lys Tyr Arg Ser Ile Ala Ile Pro Ala Ile Ser Ser Gly Val Phe 900 905 910

Gly Phe Pro Leu Gly Arg Cys Val Glu Thr Ile Val Ser Ala Ile Lys 915 920 925

Glu Asn Phe Gln Phe Lys Lys Asp Gly His Cys Leu Lys Glu Ile Tyr 930 935 940

Leu Val Asp Val Ser Glu Lys Thr Val Glu Ala Phe Ala Asp Ala Val 945 950 955 960

Gly Glu Arg Gly Cys Ala Glu Cys 965

297

<210> 230

<211> 968 <212> PRT

<213> Homo sapien

<400> 230

Asn Ser Leu Ile Tyr Asn Val Ser Asn Tyr Gln Ser Phe Ile Val His

Pro Ser Ser Thr Ser Ala Ser Phe Glu Gly Glu Cys Glu Val Arg Gln

Asp Pro Arg Ser Pro Ser Arg Phe Leu Val Phe Phe Tyr Pro Glu Asp

Val Arg Gln Lys Val Leu Glu Arg Lys Asn His Glu Leu Val Trp Gln

Gly Lys Gly Thr Phe Lys Leu Thr Val Gln Leu Pro Ala Thr Pro Asp 70

Glu Ile Asp His Val Phe Glu Glu Glu Leu Leu Thr Lys Glu Ser Lys

Thr Lys Glu Asp Val Lys Glu Pro Asp Val Ser Glu Glu Leu Asp Thr

Lys Leu Pro Leu Asp Gly Gly Leu Asp Lys Met Glu Asp Ile Pro Glu 120

Glu Cys Glu Asn Ile Ser Ser Leu Val Ala Phe Glu Asn Leu Lys Ala 130 135 140

Asn Val Thr Asp Ile Met Leu Ile Leu Leu Val Glu Asn Ile Ser Gly 150 155

Leu Ser Asn Asp Asp Phe Gln Val Glu Ile Ile Arg Asp Phe Asp Val 165

Ala Val Val Thr Phe Gln Lys His Ile Asp Thr Ile Arg Phe Val Asp 185

Asp Cys Thr Lys His His Ser Ile Lys Gln Leu Gln Leu Ser Pro Arg 195 200

298

Leu Leu Glu Val Thr Asn Thr Ile Arg Val Glu Asn Leu Pro Pro Gly 210 215 220

Ala Asp Asp Tyr Ser Leu Lys Leu Phe Phe Glu Asn Pro Tyr Asn Gly 225 230 235

Gly Gly Arg Val Ala Asn Val Glu Tyr Phe Pro Glu Glu Ser Ser Ala 245 250 255

Leu Ile Glu Phe Phe Asp Arg Lys Val Leu Asp Thr Ile Met Ala Thr 260 265 270

Lys Leu Asp Phe Asn Lys Met Pro Leu Ser Val Phe Pro Tyr Tyr Ala 275 280 280

Ser Leu Gly Thr Ala Leu Tyr Gly Lys Glu Lys Pro Leu Ile Lys Leu 290 295 300

Pro Ala Pro Phe Glu Glu Ser Leu Asp Leu Pro Leu Trp Lys Phe Leu 305 310 315 320

Gln Lys Lys Asn His Leu Ile Glu Glu Ile Asn Asp Glu Met Arg Arg 325 330 335

Cys His Cys Glu Leu Thr Trp Ser Gln Leu Ser Gly Lys Val Thr Ile 340 345 350

Arg Pro Ala Ala Thr Leu Val Asn Glu Gly Arg Pro Arg Ile Lys Thr 355 360 365

Trp Gln Ala Asp Thr Ser Thr Thr Leu Ser Ser Ile Arg Ser Lys Tyr 370 375 380

Lys Val Asn Pro Ile Lys Val Asp Pro Thr Met Trp Asp Thr Ile Lys 385 390 395 400

Asn Asp Val Lys Asp Asp Arg Ile Leu Ile Glu Phe Asp Thr Leu Lys
405
410
415

Glu Met Val Ile Leu Ala Gly Lys Ser Glu Asp Val Gln Ser Ile Glu
420 425 430

Val Gln Val Arg Glu Leu Ile Glu Ser Thr Thr Gln Lys Ile Lys Arg 435 440 445

Glu Glu Gln Ser Leu Lys Glu Lys Met Ile Ile Ser Pro Gly Arg Tyr

450 455 460 Phe Leu Cys His Ser Ser Leu Leu Asp His Leu Leu Thr Glu Cys 470 475 Pro Glu Ile Glu Ile Cys Tyr Asp Arg Val Thr Gln His Leu Cys Leu Lys Gly Pro Ser Ala Asp Val Tyr Lys Ala Lys Cys Glu Ile Gln Glu Lys Val Tyr Thr Met Ala Gln Lys Asn Ile Gln Val Ser Pro Glu Ile 520 515 Phe Gln Phe Leu Gln Gln Val Asn Trp Lys Glu Phe Ser Lys Cys Leu 535 Phe Ile Ala Gln Lys Ile Leu Ala Leu Tyr Glu Leu Glu Gly Thr Thr Val Leu Leu Thr Ser Cys Ser Ser Glu Ala Leu Leu Glu Ala Glu Lys 570 Gln Met Leu Ser Ala Leu Asn Tyr Lys Arg Ile Glu Val Glu Asn Lys 580 585 Glu Val Leu His Gly Lys Lys Trp Lys Gly Leu Thr His Asn Leu Leu 600 Lys Lys Gln Asn Ser Ser Pro Asn Thr Val Ile Ile Asn Glu Leu Thr Ser Glu Thr Thr Ala Glu Val Ile Ile Thr Gly Cys Val Lys Glu Val Asn Glu Thr Tyr Lys Leu Leu Phe Asn Phe Val Glu Gln Asn Met Lys Ile Glu Arg Leu Val Glu Val Lys Pro Ser Leu Val Ile Asp Tyr Leu . 660 Lys Thr Glu Lys Lys Leu Phe Trp Pro Lys Ile Lys Lys Val Asn Val 675 Gln Val Ser Phe Asn Pro Glu Asn Lys Gln Lys Gly Ile Leu Leu Thr

695

690

700

Gly Ser Lys Thr Glu Val Leu Lys Ala Val Asp Ile Val Lys Gln Val 705 710 715 720

Trp Asp Ser Val Cys Val Lys Ser Val His Thr Asp Lys Pro Gly Ala
725 730 735

Lys Gln Phe Phe Gln Asp Lys Ala Arg Phe Tyr Gln Ser Glu Ile Lys 740 745 750

Arg Leu Phe Gly Cys Tyr Ile Glu Leu Gln Glu Asn Glu Val Met Lys 755 760 765

Glu Gly Gly Ser Pro Ala Gly Gln Lys Cys Phe Ser Arg Thr Val Leu 770 780

Ala Pro Gly Val Val Leu Ile Val Gln Gln Gly Asp Leu Ala Arg Leu
785 790 795 800

Pro Val Asp Val Val Asn Ala Ser Asn Glu Asp Leu Lys His Tyr 805 810 815

Gly Gly Leu Ala Ala Ala Leu Ser Lys Ala Ala Gly Pro Glu Leu Gln 820 825 830

Ala Asp Cys Asp Gln Ile Val Lys Arg Glu Gly Arg Leu Leu Pro Gly 835 840 845

Asn Ala Thr Ile Ser Lys Ala Gly Lys Leu Pro Tyr His His Val Ile 850 855 860

His Ala Val Gly Pro Arg Trp Ser Gly Tyr Glu Ala Pro Arg Cys Val 865 870 875 880

Tyr Leu Leu Arg Arg Ala Val Gln Leu Ser Leu Cys Leu Ala Glu Lys 885 890 895

Tyr Lys Tyr Arg Ser Ile Ala Ile Pro Ala Ile Ser Ser Gly Val Phe 900 905 910

Gly Phe Pro Leu Gly Arg Cys Val Glu Thr Ile Val Ser Ala Ile Lys 915 920 925

Glu Asn Phe Gln Phe Lys Lys Asp Gly His Cys Leu Lys Glu Ile Tyr 930 935 940

301

Leu Val Asp Val Ser Glu Lys Thr Val Glu Ala Phe Ala Asp Ala Val 955

Gly Glu Arg Gly Cys Ala Glu Cys 965

<210> 231

<211> 968 <212> PRT

<213> Homo sapien

<400> 231

Asn Ser Leu Ile Tyr Asn Val Ser Asn Tyr Gln Ser Phe Ile Val His

Pro Ser Ser Thr Ser Ala Ser Phe Glu Gly Glu Cys Glu Val Arg Gln 25

Asp Pro Arg Ser Pro Ser Arg Phe Leu Val Phe Phe Tyr Pro Glu Asp 40

Val Arg Gln Lys Val Leu Glu Arg Lys Asn His Glu Leu Val Trp Gln

Gly Lys Gly Thr Phe Lys Leu Thr Val Gln Leu Pro Ala Thr Pro Asp

Glu Ile Asp His Val Phe Glu Glu Glu Leu Leu Thr Lys Glu Ser Lys

Thr Lys Glu Asp Val Lys Glu Pro Asp Val Ser Glu Glu Leu Asp Thr 100 105

Lys Leu Pro Leu Asp Gly Gly Leu Asp Lys Met Glu Asp Ile Pro Glu

. .

Glu Cys Glu Asn Ile Ser Ser Leu Val Ala Phe Glu Asn Leu Lys Ala 135

Asn Val Thr Asp Ile Met Leu Ile Leu Leu Val Glu Asn Ile Ser Gly 155

Leu Ser Asn Asp Asp Phe Gln Val Glu Ile Ile Arg Asp Phe Asp Val

Ala Val Val Thr Phe Gln Lys His Ile Asp Thr Ile Arg Phe Val Asp

180 185 190

Asp Cys Thr Lys His His Ser Ile Lys Gln Leu Gln Leu Ser Pro Arg

Leu Leu Glu Val Thr Asn Thr Ile Arg Val Glu Asn Leu Pro Pro Gly 210 215 220

Ala Asp Asp Tyr Ser Leu Lys Leu Phe Phe Glu Asn Pro Tyr Asn Gly 225 230 235 240

Gly Gly Arg Val Ala Asn Val Glu Tyr Phe Pro Glu Glu Ser Ser Ala 245 250 255

Leu Ile Glu Phe Phe Asp Arg Lys Val Leu Asp Thr Ile Met Ala Thr 260 265 270

Lys Leu Asp Phe Asn Lys Met Pro Leu Ser Val Phe Pro Tyr Tyr Ala 275 280 285

Ser Leu Gly Thr Ala Leu Tyr Gly Lys Glu Lys Pro Leu Ile Lys Leu 290 295 300

Pro Ala Pro Phe Glu Glu Ser Leu Asp Leu Pro Leu Trp Lys Phe Leu 305 310 315 320  $\cdot$ 

1.

Gln Lys Lys Asn His Leu Ile Glu Glu Ile Asn Asp Glu Met Arg Arg 325 330 335

Cys His Cys Glu Leu Thr Trp Ser Gln Leu Ser Gly Lys Val Thr Ile 340 345 350

Arg Pro Ala Ala Thr Leu Val Asn Glu Gly Arg Pro Arg Ile Lys Thr 355 360 365

Trp Gln Ala Asp Thr Ser Thr Thr Leu Ser Ser Ile Arg Ser Lys Tyr 370 375 380

Lys Val Asn Pro Ile Lys Val Asp Pro Thr Met Trp Asp Thr Ile Lys 385 390 395 400

Asn Asp Val Lys Asp Asp Arg Ile Leu Ile Glu Phe Asp Thr Leu Lys
405 410 410

Glu Met Val Ile Leu Ala Gly Lys Ser Glu Asp Val Gln Ser Ile Glu 420 425 430 Val Gln Val Arg Glu Leu Ile Glu Ser Thr Thr Gln Lys Ile Lys Arg 435 440 445

Glu Glu Gln Ser Leu Lys Glu Lys Met Ile Ile Ser Pro Gly Arg Tyr 450 455 460

Phe Leu Leu Cys His Ser Ser Leu Leu Asp His Leu Leu Thr Glu Cys 465 470 475 480

Pro Glu Ile Glu Ile Cys Tyr Asp Arg Val Thr Gln His Leu Cys Leu 485 490 495

Lys Gly Pro Ser Ala Asp Val Tyr Lys Ala Lys Cys Glu Ile Gln Glu 500 505 510

Lys Val Tyr Thr Met Ala Gln Lys Asn Ile Gln Val Ser Pro Glu Ile 515 520 525

Phe Gln Phe Leu Gln Gln Val Asn Trp Lys Glu Phe Ser Lys Cys Leu 530 535 540

Phe Ile Ala Gln Lys Ile Leu Ala Leu Tyr Glu Leu Glu Gly Thr Thr 545 550 555 560

Val Leu Leu Thr Ser Cys Ser Ser Glu Ala Leu Leu Glu Ala Glu Lys
565 570 575

Gln Met Leu Ser Ala Leu Asn Tyr Lys Arg Ile Glu Val Glu Asn Lys 580 585 590

Glu Val Leu His Gly Lys Lys Trp Lys Gly Leu Thr His Asn Leu Leu 595 600 605

Lys Lys Gln Asn Ser Ser Pro Asn Thr Val Ile Ile Asn Glu Leu Thr 610 615 620

Ser Glu Thr Thr Ala Glu Val Ile Ile Thr Gly Cys Val Lys Glu Val 625 630 635

Asn Glu Thr Tyr Lys Leu Phe Asn Phe Val Glu Gln Asn Met Lys
645 650 655

Ile Glu Arg Leu Val Glu Val Lys Pro Ser Leu Val Ile Asp Tyr Leu 660 665 670

304

Lys Thr Glu Lys Lys Leu Phe Trp Pro Lys Ile Lys Lys Val Asn Val 675 680 685

Gln Val Ser Phe Asn Pro Glu Asn Lys Gln Lys Gly Ile Leu Leu Thr 690 695 700

Gly Ser Lys Thr Glu Val Leu Lys Ala Val Asp Ile Val Lys Gln Val 705 710 715 720

Trp Asp Ser Val Cys Val Lys Ser Val His Thr Asp Lys Pro Gly Ala 725 730 735

Lys Gln Phe Phe Gln Asp Lys Ala Arg Phe Tyr Gln Ser Glu Ile Lys 740 745 750

Arg Leu Phe Gly Cys Tyr Ile Glu Leu Gln Glu Asn Glu Val Met Lys
755 760 765

Glu Gly Gly Ser Pro Ala Gly Gln Lys Cys Phe Ser Arg Thr Val Leu 770 775 780

Ala Pro Gly Val Val Leu Ile Val Gln Gln Gly Asp Leu Ala Arg Leu 785 790 795 800

Pro Val Asp Val Val Val Asn Ala Ser Asn Glu Asp Leu Lys His Tyr 805 810 815

Gly Gly Leu Ala Ala Leu Ser Lys Ala Ala Gly Pro Glu Leu Gln 820 825 830

Ala Asp Cys Asp Gln Ile Val Lys Arg Glu Gly Arg Leu Leu Pro Gly 835 840 845

Asn Ala Thr Ile Ser Lys Ala Gly Lys Leu Pro Tyr His His Val Ile 850 855 860

His Ala Val Gly Pro Arg Trp Ser Gly Tyr Glu Ala Pro Arg Cys Val 865 870 875 880

Tyr Leu Leu Arg Arg Ala Val Gln Leu Ser Leu Cys Leu Ala Glu Lys 885 890 895

Tyr Lys Tyr Arg Ser Ile Ala Ile Pro Ala Ile Ser Ser Gly Val Phe 900 905 910

305

Gly Phe Pro Leu Gly Arg Cys Val Glu Thr Ile Val Ser Ala Ile Lys 920

Glu Asn Phe Gln Phe Lys Lys Asp Gly His Cys Leu Lys Glu Ile Tyr 930 935 940

Leu Val Asp Val Ser Glu Lys Thr Val Glu Ala Phe Ala Asp Ala Val 945 950 955 960

Gly Glu Arg Gly Cys Ala Glu Cys 965

<210> 232
<211> 1744
<212> PRT
<213> Homo sapien

<400> 232

Met Asn Ser Leu Ile Tyr Asn Val Ser Asn Tyr Gln Ser Phe Ile Val

His Pro Ser Ser Thr Ser Ala Ser Phe Glu Gly Glu Cys Glu Val Arg 20 25

Gln Asp Pro Arg Ser Pro Ser Arg Phe Leu Val Phe Phe Tyr Pro Glu 35 40

Asp Val Arg Gln Lys Val Leu Glu Arg Lys Asn His Glu Leu Val Trp

Gln Gly Lys Gly Thr Phe Lys Leu Thr Val Gln Leu Pro Ala Thr Pro

Asp Glu Ile Asp His Val Phe Glu Glu Leu Leu Thr Lys Glu Ser

Lys Thr Lys Glu Asp Val Lys Glu Pro Asp Val Ser Glu Glu Leu Asp 105

Thr Lys Leu Pro Leu Asp Gly Gly Leu Asp Lys Met Glu Asp Ile Pro 115 120

Glu Glu Cys Glu Asn Ile Ser Ser Leu Val Ala Phe Glu Asn Leu Lys 130 135 140

Ala Asn Val Thr Asp Ile Met Leu Ile Leu Leu Val Glu Asn Ile Ser 145 150 155 160

Gly Leu Ser Asn Asp Asp Phe Gln Val Glu Ile Ile Arg Asp Phe Asp 165 170 175

Val Ala Val Val Thr Phe Gln Lys His Ile Asp Thr Ile Arg Phe Val 180 185 190

Asp Asp Cys Thr Lys His His Ser Ile Lys Gln Leu Gln Leu Ser Pro 195 200 205

Arg Leu Leu Glu Val Thr Asn Thr Ile Arg Val Glu Asn Leu Pro Pro 210 215 220

Gly Ala Asp Asp Tyr Ser Leu Lys Leu Phe Phe Glu Asn Pro Tyr Asn 225 230 235

Gly Gly Gly Arg Val Ala Asn Val Glu Tyr Phe Pro Glu Glu Ser Ser 245 250 255

Ala Leu Ile Glu Phe Phe Asp Arg Lys Val Leu Asp Thr Ile Met Ala 260 265 270

Thr Lys Leu Asp Phe Asn Lys Met Pro Leu Ser Val Phe Pro Tyr Tyr 275 280 285

Ala Ser Leu Gly Thr Ala Leu Tyr Gly Lys Glu Lys Pro Leu Ile Lys 290 295 300

Leu Pro Ala Pro Phe Glu Glu Ser Leu Asp Leu Pro Leu Trp Lys Phe 305 310 315 320

Leu Gln Lys Lys Asn His Leu Ile Glu Glu Ile Asn Asp Glu Met Arg 325 330 335

Arg Cys His Cys Glu Leu Thr Trp Ser Gln Leu Ser Gly Lys Val Thr 340 345 350

Ile Arg Pro Ala Ala Thr Leu Val Asn Glu Gly Arg Pro Arg Ile Lys 355 360 365

Thr Trp Gln Ala Asp Thr Ser Thr Thr Leu Ser Ser Ile Arg Ser Lys 370 380

Tyr Lys Val Asn Pro Ile Lys Val Asp Pro Thr Met Trp Asp Thr Ile 385 390 395 400

307

Lys Asn Asp Val Lys Asp Asp Arg Ile Leu Ile Glu Phe Asp Thr Leu 405 410 415

Lys Glu Met Val Ile Leu Ala Gly Lys Ser Glu Asp Val Gln Ser Ile.
420 425 430

Glu Val Gln Val Arg Glu Leu Ile Glu Ser Thr Thr Gln Lys Ile Lys 435 440 445

Arg Glu Glu Gln Ser Leu Lys Glu Lys Met Ile Ile Ser Pro Gly Arg 450 455 460

Tyr Phe Leu Leu Cys His Ser Ser Leu Leu Asp His Leu Leu Thr Glu 465 470 475 480

Cys Pro Glu Ile Glu Ile Cys Tyr Asp Arg Val Thr Gln His Leu Cys 485 490 495

Leu Lys Gly Pro Ser Ala Asp Val Tyr Lys Ala Lys Cys Glu Ile Gln 500 505 510

Glu Lys Val Tyr Thr Met Ala Gln Lys Asn Ile Gln Val Ser Pro Glu 515 520 525

Ile Phe Gln Phe Leu Gln Gln Val Asn Trp Lys Glu Phe Ser Lys Cys 530 540

Leu Phe Ile Ala Gln Lys Ile Leu Ala Leu Tyr Glu Leu Glu Gly Thr 545 550 555 560

Thr Val Leu Leu Thr Ser Cys Ser Ser Glu Ala Leu Leu Glu Ala Glu 565 570 575

Lys Gln Met Leu Ser Ala Leu Asn Tyr Lys Arg Ile Glu Val Glu Asn 580 585 590

Lys Glu Val Leu His Gly Lys Lys Trp Lys Gly Leu Thr His Asn Leu 595 600 605

Leu Lys Lys Gln Asn Ser Ser Pro Asn Thr Val Ile Ile Asn Glu Leu 610 615 620

Thr Ser Glu Thr Thr Ala Glu Val Ile Ile Thr Gly Cys Val Lys Glu 625 635 640

308

Val Asn Glu Thr Tyr Lys Leu Leu Phe Asn Phe Val Glu Gln Asn Met 645 650 655

Lys Ile Glu Arg Leu Val Glu Val Lys Pro Ser Leu Val Ile Asp Tyr 660 665 670

Leu Lys Thr Glu Lys Lys Leu Phe Trp Pro Lys Ile Lys Lys Val Asn 675 680 685

Val Gln Val Ser Phe Asn Pro Glu Asn Lys Gln Lys Gly Ile Leu Leu 690 695 700

Thr Gly Ser Lys Thr Glu Val Leu Lys Ala Val Asp Ile Val Lys Gln 705 710 715 720

Val Trp Asp Ser Val Cys Val Lys Ser Val His Thr Asp Lys Pro Gly 725 730 735

Ala Lys Gln Phe Phe Gln Asp Lys Ala Arg Phe Tyr Gln Ser Glu Ile 740 745 750

Lys Arg Leu Phe Gly Cys Tyr Ile Glu Leu Gln Glu Asn Glu Val Met 755 760 765

Lys Glu Gly Gly Ser Pro Ala Gly Gln Lys Cys Phe Ser Arg Thr Val 770 780

Leu Ala Pro Gly Val Val Leu Ile Val Gln Gly Asp Leu Ala Arg 785 790 795 800

Leu Pro Val Asp Val Val Val Asn Ala Ser Asn Glu Asp Leu Lys His 805 810 815

Tyr Gly Gly Leu Ala Ala Leu Ser Lys Ala Ala Gly Pro Glu Leu 820 825 830

Gln Ala Asp Cys Asp Gln Ile Val Lys Arg Glu Gly Arg Leu Leu Pro 835 840 845

Gly Asn Ala Thr Ile Ser Lys Ala Gly Lys Leu Pro Tyr His His Val

Ile His Ala Val Gly Pro Arg Trp Ser Gly Tyr Glu Ala Pro Arg Cys 865 870 875 880

Val Tyr Leu Leu Arg Arg Ala Val Gln Leu Ser Leu Cys Leu Ala Glu

885 890 895

Phe Gly Phe Pro Leu Gly Arg Cys Val Glu Thr Ile Val Ser Ala Ile 915 920 925

Lys Glu Asn Phe Gln Phe Lys Lys Asp Gly His Cys Leu Lys Glu Ile 930 935 940

Tyr Leu Val Asp Val Ser Glu Lys Thr Val Gly Pro Leu Gln Met Leu 945 950 955 960

Leu Val Lys Glu Gly Val Gln Asn Ala Lys Thr Asp Val Val Val Asn 965 970 975

Ser Val Pro Leu Asp Leu Val Leu Ser Arg Gly Pro Leu Ser Lys Ser 980 985 990

Leu Leu Glu Lys Ala Gly Pro Glu Leu Gln Glu Glu Leu Asp Thr Val 995 1000 1005

Gly Gln Gly Val Ala Val Ser Met Gly Thr Val Leu Lys Thr Ser 1010 1015 1020

Ser Trp Asn Leu Asp Cys Arg Tyr Val Leu His Val Val Ala Pro 1025 1030 1035

Glu Trp Arg Asn Gly Ser Thr Ser Ser Leu Lys Ile Met Glu Asp 1040 1045 1050

Ile Ile Arg Glu Cys Met Glu Ile Thr Glu Ser Leu Ser Leu Lys 1055 1060 1065

Ser Ile Ala Phe Pro Ala Ile Gly Thr Gly Asn Leu Gly Phe Pro 1070 1075 1080

Lys Asn Ile Phe Ala Glu Leu Ile Ile Ser Glu Val Phe Lys Phe 1085 1090 1095

Ser Ser Lys Asn Gln Leu Lys Thr Leu Gln Glu Val His Phe Leu 1100 1105 1110

Leu His Pro Ser Asp His Glu Asn Ile Gln Ala Phe Ser Asp Glu 1115 1120 1125

Phe Ala Arg Arg Ala Asn Gly Asn Leu Val Ser Asp Lys Ile Pro 1130 1135 1140 Lys Ala Lys Asp Thr Gln Gly Phe Tyr Gly Thr Val Ser Ser Pro 1145 1150 Asp Ser Gly Val Tyr Glu Met Lys Ile Gly Ser Ile Ile Phe Gln 1165 Val Ala Ser Gly Asp Ile Thr Lys Glu Glu Ala Asp Val Ile Val 1180 Asn Ser Thr Ser Asn Ser Phe Asn Leu Lys Ala Gly Val Ser Lys 1195 . 1200 Ala Ile Leu Glu Cys Ala Gly Gln Asn Val Glu Arg Glu Cys Ser 1205 1210 1215 Gln Gln Ala Gln Gln Arg Lys Asn Asp Tyr Ile Ile Thr Gly Gly 1220 1225 Gly Phe Leu Arg Cys Lys Asn Ile Ile His Val Ile Gly Gly Asn 1240 Asp Val Lys Ser Ser Val Ser Ser Val Leu Gln Glu Cys Glu Lys Lys Asn Tyr Ser Ser Ile Cys Leu Pro Ala Ile Gly Thr Gly Asn 1270 Ala Lys Gln His Pro Asp Lys Val Ala Glu Ala Ile Ile Asp Ala 1280 1285 Ile Glu Asp Phe Val Gln Lys Gly Ser Ala Gln Ser Val Lys Lys 1295 1300 Val Lys Val Val Ile Phe Leu Pro Gln Val Leu Asp Val Phe Tyr 1310 1315 Ala Asn Met Lys Lys Arg Glu Gly Thr Gln Leu Ser Ser Gln Gln 1330 1335 Ser Val Met Ser Lys Leu Ala Ser Phe Leu Gly Phe Ser Lys Gln 1340 1345 1350

Ser	Pro 1355	Gln	Lys	Lys	Asn	His 1360		Val	Leu	Glu	Lys 1365	Lys	Thr	Glu
Ser	Ala 1370	Thr	Phe	Arg	Val	Cys 1375	•	Glu	Asn	Val	Thr 1380	Сув	Val	Glu
Tyr	Ala 1385	Ile	Ser	Trp	Leu	Gln 1390	-	Leu	Ile	Glu	Lys 1395	Glu	Gln	Сув
Pro	Tyr 1400	Thr	Ser	Glu	Asp	Glu 1405	Cys	Ile	Lys	Asp	Phe 1410	Asp	Glu	Lys
Glu	Tyr 1415	Gln	Glu	Leu	Asn	Glu 1420	Leu	Gln	Lys	Lys	Leu 1425	Asn	Ile	Asn
Ile	Ser 1430	Leu	Asp	His	Lys	Arg 1435	Pro	Leu	Ile	Lys	Val 1440	Leu	Gly	Ile
Ser	Arg 1445	Asp	Val	Met	Gln	Ala 1450	Arg	Asp	Glu	Ile	Glu 1455	Ala	Met	Ile
Lys	Arg 1460	Val	Arg	Leu	Ala	Lys 1465	Glu	Gln	Glu	Ser	Arg 1470	Ala	qaA	Cys
Ile	Ser 1475	Glu	Phe	Ile	Glu	Trp 1480	Gln	Tyr	Asn	qaA	Asn 1485	Asn	Thr	Ser
His	Cys 1490	Phe	Asn	Lys	Met	Thr 1495	Asn	Leu	Lys	Leu	Glu 1500	Asp	Ala	Arg
Arg	Glu 1505	Lys	Lys	Lys	Thr	Val 1510	Asp	Val	Lys	Ile	Asn 1515	His	Arg	His

- Tyr Thr Val Asn Leu Asn Thr Tyr Thr Ala Thr Asp Thr Lys Gly 1520 1530
- His Ser Leu Ser Val Gln Arg Leu Thr Lys Ser Lys Val Asp Ile 1535 1540 1545
- Pro Ala His Trp Ser Asp Met Lys Gln Gln Asn Phe Cys Val Val 1550 1550 1560
- Glu Leu Leu Pro Ser Asp Pro Glu Tyr Asn Thr Val Ala Ser Lys 1565 1570 1575

312

Phe Asn Gln Thr Cys Ser His Phe Arg Ile Glu Lys Ile Glu Arg 1585 1590

Ile Gln Asn Pro Asp Leu Trp Asn Ser Tyr Gln Ala Lys Lys 1600 1595

Thr Met Asp Ala Lys Asn Gly Gln Thr Met Asn Glu Lys Gln Leu 1620 1610 1615

Phe His Gly Thr Asp Ala Gly Ser Val Pro His Val Asn Arg Asn 1625 1630 1635

Gly Phe Asn Arg Ser Tyr Ala Gly Lys Asn Ala Val Ala Tyr Gly

Lys Gly Thr Tyr Phe Ala Val Asn Ala Asn Tyr Ser Ala Asn Asp 1660

Thr Tyr Ser Arg Pro Asp Ala Asn Gly Arg Lys His Val Tyr Tyr 1680 1670 1675

Val Arg Val Leu Thr Gly Ile Tyr Thr His Gly Asn His Ser Leu 1685 1690

Ile Val Pro Pro Ser Lys Asn Pro Gln Asn Pro Thr Asp Leu Tyr 1700 1705

Asp Thr Val Thr Asp Asn Val His His Pro Ser Leu Phe Val Ala 1725 1715 1720

Phe Tyr Asp Tyr Gln Ala Tyr Pro Glu Tyr Leu Ile Thr Phe Arg 1730 1735

Lys

<210> 233

<211> 968 <212> PRT <213> Homo sapien

<400> 233

Asn Ser Leu Ile Tyr Asn Val Ser Asn Tyr Gln Ser Phe Ile Val His

Pro Ser Ser Thr Ser Ala Ser Phe Glu Gly Glu Cys Glu Val Arg Gln 20 25

Asp Pro Arg Ser Pro Ser Arg Phe Leu Val Phe Phe Tyr Pro Glu Asp 35 40

Val Arg Gln Lys Val Leu Glu Arg Lys Asn His Glu Leu Val Trp Gln 50 55 60

Gly Lys Gly Thr Phe Lys Leu Thr Val Gln Leu Pro Ala Thr Pro Asp 65 70 75 80

Glu Ile Asp His Val Phe Glu Glu Glu Leu Leu Thr Lys Glu Ser Lys 85 90 95

Thr Lys Glu Asp Val Lys Glu Pro Asp Val Ser Glu Glu Leu Asp Thr 100 105 110

Lys Leu Pro Leu Asp Gly Gly Leu Asp Lys Met Glu Asp Ile Pro Glu 115 120 125

Glu Cys Glu Asn Ile Ser Ser Leu Val Ala Phe Glu Asn Leu Lys Ala 130 135 140

Asn Val Thr Asp Ile Met Leu Ile Leu Leu Val Glu Asn Ile Ser Gly 145 150 155 160

Leu Ser Asn Asp Asp Phe Gln Val Glu Ile Ile Arg Asp Phe Asp Val

Ala Val Val Thr Phe Gln Lys His Ile Asp Thr Ile Arg Phe Val Asp 180 185 190

Asp Cys Thr Lys His His Ser Ile Lys Gln Leu Gln Leu Ser Pro Arg 195 200 205

Leu Leu Glu Val Thr Asn Thr Ile Arg Val Glu Asn Leu Pro Pro Gly 210 215 220

Ala Asp Asp Tyr Ser Leu Lys Leu Phe Phe Glu Asn Pro Tyr Asn Gly 225 230 235 240

Gly Gly Arg Val Ala Asn Val Glu Tyr Phe Pro Glu Glu Ser Ser Ala 245 250 255

Leu Ile Glu Phe Phe Asp Arg Lys Val Leu Asp Thr Ile Met Ala Thr 260 265 270

314

Lys Leu Asp Phe Asn Lys Met Pro Leu Ser Val Phe Pro Tyr Tyr Ala 275 280 285

Ser Leu Gly Thr Ala Leu Tyr Gly Lys Glu Lys Pro Leu Ile Lys Leu 290 295 300

Pro Ala Pro Phe Glu Glu Ser Leu Asp Leu Pro Leu Trp Lys Phe Leu 305 310 315 320

Gln Lys Lys Asn His Leu Ile Glu Glu Ile Asn Asp Glu Met Arg Arg 325 330 335

Cys His Cys Glu Leu Thr Trp Ser Gln Leu Ser Gly Lys Val Thr Ile 340 345 350

Arg Pro Ala Ala Thr Leu Val Asn Glu Gly Arg Pro Arg Ile Lys Thr 355 360 365

Trp Gln Ala Asp Thr Ser Thr Thr Leu Ser Ser Ile Arg Ser Lys Tyr 370 375 380

Lys Val Asn Pro Ile Lys Val Asp Pro Thr Met Trp Asp Thr Ile Lys 385 390 395 400

Asn Asp Val Lys Asp Asp Arg Ile Leu Ile Glu Phe Asp Thr Leu Lys 405 410 415

Glu Met Val Ile Leu Ala Gly Lys Ser Glu Asp Val Gln Ser Ile Glu 420 425 430

Val Gln Val Arg Glu Leu Ile Glu Ser Thr Thr Gln Lys Ile Lys Arg 435 440 445

Glu Glu Gln Ser Leu Lys Glu Lys Met Ile Ile Ser Pro Gly Arg Tyr 450 455 460

Phe Leu Leu Cys His Ser Ser Leu Leu Asp His Leu Leu Thr Glu Cys 465 470 475

Pro Glu Ile Glu Ile Cys Tyr Asp Arg Val Thr Gln His Leu Cys Leu 485 490 495

Lys Gly Pro Ser Ala Asp Val Tyr Lys Ala Lys Cys Glu Ile Gln Glu 500 505 510

315

Lys Val Tyr Thr Met Ala Gln Lys Asn Ile Gln Val Ser Pro Glu Ile 515 520 525

Phe Gln Phe Leu Gln Gln Val Asn Trp Lys Glu Phe Ser Lys Cys Leu 530 535 540

Phe Ile Ala Gln Lys Ile Leu Ala Leu Tyr Glu Leu Glu Gly Thr Thr 545 550 555 560

Val Leu Leu Thr Ser Cys Ser Ser Glu Ala Leu Leu Glu Ala Glu Lys
565 570 575

Gln Met Leu Ser Ala Leu Asn Tyr Lys Arg Ile Glu Val Glu Asn Lys 580 585 590

Glu Val Leu His Gly Lys Lys Trp Lys Gly Leu Thr His Asn Leu Leu 595 600 605

Lys Lys Gln Asn Ser Ser Pro Asn Thr Val Ile Ile Asn Glu Leu Thr 610 615 620

Ser Glu Thr Thr Ala Glu Val Ile Ile Thr Gly Cys Val Lys Glu Val 625 630 635 640

Asn Glu Thr Tyr Lys Leu Leu Phe Asn Phe Val Glu Gln Asn Met Lys 645 650 655

Ile Glu Arg Leu Val Glu Val Lys Pro Ser Leu Val Ile Asp Tyr Leu 660 665 670

Lys Thr Glu Lys Lys Leu Phe Trp Pro Lys Ile Lys Lys Val Asn Val 675 680 685

Gln Val Ser Phe Asn Pro Glu Asn Lys Gln Lys Gly Ile Leu Leu Thr 690 695 700

Gly Ser Lys Thr Glu Val Leu Lys Ala Val Asp Ile Val Lys Gln Val
705 710 715 720

Trp Asp Ser Val Cys Val Lys Ser Val His Thr Asp Lys Pro Gly Ala
725 730 735

Lys Gln Phe Phe Gln Asp Lys Ala Arg Phe Tyr Gln Ser Glu Ile Lys 740 745 750

Arg Leu Phe Gly Cys Tyr Ile Glu Leu Gln Glu Asn Glu Val Met Lys

316

755 760 765

Glu Gly Gly Ser Pro Ala Gly Gln Lys Cys Phe Ser Arg Thr Val Leu 775 780

Ala Pro Gly Val Val Leu Ile Val Gln Gln Gly Asp Leu Ala Arg Leu 795

Pro Val Asp Val Val Val Asn Ala Ser Asn Glu Asp Leu Lys His Tyr

Gly Gly Leu Ala Ala Ala Leu Ser Lys Ala Ala Gly Pro Glu Leu Gln

Ala Asp Cys Asp Gln Ile Val Lys Arg Glu Gly Arg Leu Leu Pro Gly

Asn Ala Thr Ile Ser Lys Ala Gly Lys Leu Pro Tyr His His Val Ile 855 860

His Ala Val Gly Pro Arg Trp Ser Gly Tyr Glu Ala Pro Arg Cys Val 870 875

Tyr Leu Leu Arg Arg Ala Val Gln Leu Ser Leu Cys Leu Ala Glu Lys 890

Tyr Lys Tyr Arg Ser Ile Ala Ile Pro Ala Ile Ser Ser Gly Val Phe

Gly Phe Pro Leu Gly Arg Cys Val Glu Thr Ile Val Ser Ala Ile Lys

Glu Asn Phe Gln Phe Lys Lys Asp Gly His Cys Leu Lys Glu Ile Tyr 930 935

Leu Val Asp Val Ser Glu Lys Thr Val Glu Ala Phe Ala Asp Ala Val 945 955

Gly Glu Arg Gly Cys Ala Glu Cys 965

<210> 234 <211> 282

<212> PRT

<213> Homo sapien

<400> 234

- Met Gln Arg Leu Arg Trp Leu Arg Asp Trp Lys Ser Ser Gly Arg Gly
  1 5 10 15
- Leu Thr Ala Ala Lys Glu Pro Gly Ala Arg Ser Ser Pro Leu Gln Ala 20 25 30
- Met Arg Ile Leu Gln Leu Ile Leu Leu Ala Leu Ala Thr Gly Leu Val 35 40 45
- Gly Glu Thr Arg Ile Ile Lys Gly Phe Glu Cys Lys Pro His Ser
- Gln Pro Trp Gln Ala Ala Leu Phe Glu Lys Thr Arg Leu Leu Cys Gly 65 70 75 80
- Ala Thr Leu Ile Ala Pro Arg Trp Leu Leu Thr Ala Ala His Cys Leu 85 90 95
- Lys Pro Arg Tyr Ile Val His Leu Gly Gln His Asn Leu Gln Lys Glu
  100 105 110
- Glu Gly Cys Glu Gln Thr Arg Thr Ala Thr Glu Ser Phe Pro His Pro 115 120 125
- Gly Phe Asn Asn Ser Leu Pro Asn Lys Asp His Arg Asn Asp Ile Met 130 135 140
- Leu Val Lys Met Ala Ser Pro Val Ser Ile Thr Trp Ala Val Arg Pro 145 150 155 160
- Leu Thr Leu Ser Ser Arg Cys Val Thr Ala Gly Thr Ser Cys Leu Ile 165 170 175
- Ser Gly Trp Gly Ser Thr Ser Ser Pro Gln Leu Arg Leu Pro His Thr 180 185 190
- Leu Arg Cys Ala Asn Ile Thr Ile Ile Glu His Gln Lys Cys Glu Asn 195 200 205
- Ala Tyr Pro Gly Asn Ile Thr Asp Thr Met Val Cys Ala Ser Val Gln 210 215 220
- Glu Gly Gly Lys Asp Ser Cys Gln Gly Asp Ser Gly Gly Pro Leu Val 225 230 235 240

318

Cys Asn Gln Ser Leu Gln Gly Ile Ile Ser Trp Gly Gln Asp Pro Cys

Ala Ile Thr Arg Lys Pro Gly Val Tyr Thr Lys Val Cys Lys Tyr Val 270 260 265

Asp Trp Ile Gln Glu Thr Met Lys Asn Asn 280

<210> 235

<211> 221 <212> PRT <213> Homo sapien

<400> 235

Arg Gly Trp Lys Gln Ser Asp Val Ser Ser Ser Ser Lys Val Ser Leu

Thr Ser Pro Thr His Val Ser Pro Asp Leu Ser Ser Asn Tyr Cys 25 20

Leu Ser His Leu Ser Arg Tyr Ile Val His Leu Gly Gln His Asn Leu 40

Gln Lys Glu Glu Gly Cys Glu Gln Thr Arg Thr Ala Thr Glu Ser Phe 55

Pro His Pro Gly Phe Asn Asn Ser Leu Pro Asn Lys Asp His Arg Asn

Asp Ile Met Leu Val Lys Met Ala Ser Pro Val Ser Ile Thr Trp Ala

Val Arg Pro Leu Thr Leu Ser Ser Arg Cys Val Thr Ala Gly Thr Ser 105

Cys Leu Ile Ser Gly Trp Gly Ser Thr Ser Ser Pro Gln Leu Arg Leu

Pro His Thr Leu Arg Cys Ala Asn Ile Thr Ile Ile Glu His Gln Lys 135 130

Cys Glu Asn Ala Tyr Pro Gly Asn Ile Thr Asp Thr Met Val Cys Ala 145 150

Ser Val Gln Glu Gly Gly Lys Asp Ser Cys Gln Gly Asp Ser Gly Gly 165 170

Pro Leu Val Cys Asn Gln Ser Leu Gln Gly Ile Ile Ser Trp Gly Gln 180 185

Asp Pro Cys Ala Ile Thr Arg Lys Pro Gly Val Tyr Thr Lys Val Cys 200

Lys Tyr Val Asp Trp Ile Gln Glu Thr Met Lys Asn Asn 215

<210> 236 <211> 34 <212> PRT <213> Homo sapien

<400> 236

Leu Gly Thr Arg Gly His Phe His Glu Ser Pro Arg Lys Pro Gly Val

Tyr Thr Lys Val Cys Lys Tyr Val Asp Trp Ile Gln Glu Thr Met Lys 25

Asn Asn

<210> 237

<211> 58

<212> PRT <213> Homo sapien

<400> 237

Ala Arg Tyr Pro Trp Thr Phe Pro Arg Val Thr Pro Lys Ala Trp Cys

Leu His Glu Ser Leu Gln Ile Cys Gly Leu Asp Pro Gly Asp Asp Glu

Glu Gln Leu Asp Trp Thr His Pro Pro Gln Pro Ile Thr Leu His Phe 40

His Leu Val Phe Gly Ser Cys Ser Leu Cys

<210> 238

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320

<400> 238

Gly Pro Gln Glu Leu His His Arg Trp Trp Ser Gly Trp Leu Arg Pro

Trp Ser Phe Cys Ala Trp Ile Cys Ile Phe Ile Ala Leu Leu Val Glu

Thr Pro Arg Pro Val His Pro Ala Lys Thr Pro Gln Ala Ala Cys Gly 40

Ser Arg Thr Leu Pro Pro Phe Pro Arg Cys Pro Leu Arg Ala Arg Ala

Ala Thr Gln Ala Cys Trp Leu Arg Pro Pro Leu Gly Gln Ala Leu Ala

Gln Pro Ala Glu Trp Gly Val Val Gly Gln Ser Pro Arg Ser Trp Ala 85 90

Pro Ala Gln Ala His Arg Ala Arg Pro His Pro Ala Ala Pro Arg Thr 100 105

Ala Thr Arg Gly Val Leu Pro Leu Cys Pro Ala Pro Gly Thr Asn Ser 120

Met Phe Gly Val Cys Leu Cys Leu Phe Phe Lys Lys 135

<210> 239

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<400> 239

Arg Pro Pro Gly Leu Ser Thr Leu Pro Arg Leu Leu Arg Gln Arg Val

Gly Pro Ala Leu Cys Pro His Phe Pro Asp Val Pro Cys Gly Arg Gly 20

Gln Pro Pro Lys Pro Ala Gly Cys Gly Pro Leu Ser Ala Arg His Trp

Leu Ser Pro Leu Ser Gly Gly Ser Trp Ala Ser Pro Arg Gly Ala Gly 55

321

Pro Leu His Arg His Thr Gly Pro Gly His Thr Gln Arg Pro Pro Ala

Gln Pro Pro Val Gly Cys Cys Pro Tyr Ala Arg Arg Arg Ala Pro Thr

Pro Cys Leu Val Phe Val Cys Val Cys Phe Ser Arg Asn Asp Ser Asn 100 105

Cys Cys Leu Asp Phe Glu Ile Tyr Cys Asn Cys Gln Cys Thr Arg Leu

Asp Pro Val Ser Phe Leu His Gln Phe Gly Lys Asn Ala Ala Leu Ser

Leu Pro Gln Leu Asn Arg Met

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<211> 402 <212> PRT <213> Homo sapien

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Asn Ser Ala Pro Ser Val Cys Pro Pro Ala Pro Pro Pro Gly Leu Glu

Lys Leu Pro Phe Arg Gly Ser Gln Glu Val Lys Trp Pro Thr Gln Leu

Leu Cys Arg Gly Arg Pro Gly Thr Ser Phe Ser Phe Ser Val His Leu

Tyr Thr Phe Pro Leu Phe Ser Leu His Phe Pro Gln Lys Ser Leu Pro 70

Leu Leu Glu Asn Gln Ile Lys Glu Thr His Gln Arg Ile Thr Glu Glu

Leu Gln Lys Tyr Gly Val Asp Ile Pro Glu Asp Glu Asn Glu Lys Met 100 105

Phe Phe Leu Ile Asp Lys Ile Asn Ala Phe Asn Gln Asp Ile Thr Ala 115 125 120

Leu Met Gln Gly Glu Glu Thr Val Gly Glu Glu Asp Ile Arg Leu Phe
130 140

Thr Arg Leu Arg His Glu Phe His Lys Trp Ser Thr Ile Ile Glu Asn 145 150 155 160

Asn Phe Gln Glu Gly His Lys Ile Leu Ser Arg Lys Ile Gln Lys Phe 165 170 175

Glu Asn Gln Tyr Arg Gly Arg Glu Leu Pro Gly Phe Val Asn Tyr Arg 180 185 190

Thr Phe Glu Thr Ile Val Lys Gln Gln Ile Lys Ala Leu Glu Glu Pro 195 200 205

Ala Val Asp Met Leu His Thr Val Thr Asp Met Val Arg Leu Ala Phe 210 215 220

Thr Asp Val Ser Ile Lys Asn Phe Glu Glu Phe Phe Asn Leu His Arg 225 230 235 240

Thr Ala Lys Ser Lys Ile Glu Asp Ile Arg Ala Glu Glu Glu Arg Glu 245 250 255

Gly Glu Lys Leu Ile Arg Leu His Phe Gln Met Glu Gln Ile Val Tyr

Cys Gln Asp Gln Val Tyr Arg Gly Ala Leu Gln Lys Val Arg Glu Lys 275 280 285

Glu Leu Glu Glu Glu Lys Lys Lys Ser Trp Asp Phe Gly Ala Phe 290 295 300

Gln Ser Ser Ser Ala Thr Asp Ser Ser Met Glu Glu Ile Phe Gln His 305 310 315 320

Leu Met Ala Tyr His Gln Glu Ala Ser Lys Arg Ile Ser Ser His Ile
325 330 335

Pro Leu Ile Ile Gln Phe Met Leu Gln Thr Tyr Gly Gln Gln Leu 340 345 350

Gln Lys Ala Met Leu Gln Leu Gln Asp Lys Asp Thr Tyr Ser Trp 355 360 365

323

Leu Leu Lys Glu Arg Ser Asp Thr Ser Asp Lys Arg Lys Phe Leu Lys

Glu Arg Leu Ala Arg Leu Thr Gln Ala Arg Arg Arg Leu Ala Gln Phe 390 395

Pro Gly

<210> 241

<211> 241 <211> 155 <212> PRT <213> Homo sapien

<400> 241

Lys Glu Ser Leu Tyr His Lys Lys Val Leu Asp Tyr Val Ile Cys Val

Cys Ala Ala Ser Gly Val Leu Phe Pro Asn Pro Arg Ile Gly Asp His

Phe Asn Gln Phe Gly His Gln Glu Asn Cys Gln Asn Glu Glu Ile Leu

Asn Ser Leu Lys Tyr Val Arg Pro Gly Gly Gly Tyr Gln Pro Thr Phe

Thr Leu Val Gln Lys Cys Glu Val Asn Gly Gln Asn Glu His Pro Val

Phe Ala Tyr Leu Lys Asp Lys Leu Pro Tyr Pro Tyr Asp Asp Pro Phe 85 90

Ser Leu Met Thr Asp Pro Lys Leu Ile Ile Trp Ser Pro Val Arg Arg 100

Ser Asp Val Ala Trp Asn Phe Glu Lys Phe Leu Ile Gly Pro Glu Gly

Glu Pro Phe Arg Arg Tyr Ser Arg Thr Phe Pro Thr Ile Asn Ile Glu

Pro Asp Ile Lys Arg Leu Leu Lys Val Ala Ile 150

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Arg Pro Gly Gly Gly Tyr Gln Pro Thr Phe Thr Leu Val Gln Lys Cys

Glu Val Asn Gly Gln Asn Glu His Pro Val Phe Ala Tyr Leu Lys Asp

Lys Leu Pro Tyr Pro Tyr Asp Asp Pro Phe Ser Leu Met Thr Asp Pro

Lys Leu Ile Ile Trp Ser Pro Val Arg Arg Ser Asp Val Ala Trp Asn

Phe Glu Lys Phe Leu Ile Gly Pro Glu Gly Glu Pro Phe Arg Arg Tyr

Ser Arg Thr Phe Pro Thr Ile Asn Ile Glu Pro Asp Ile Lys Arg Leu 115

Leu Lys Val Ala Ile 130

<210> 243

<211> 126

<212> PRT <213> Homo sapien

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Glu Ile Leu Asn Ser Leu Lys Tyr Val Arg Pro Gly Gly Gly Tyr Gln 20

Pro Thr Phe Thr Leu Val Gln Lys Cys Glu Val Asn Gly Gln Asn Glu 40

His Pro Val Phe Ala Tyr Leu Lys Asp Lys Leu Pro Tyr Pro Tyr Asp

Asp Pro Phe Ser Leu Met Thr Asp Pro Lys Leu Ile Ile Trp Ser Pro

Val Arg Arg Ser Asp Val Ala Trp Asn Phe Glu Lys Phe Leu Ile Gly 90

Pro Glu Gly Glu Pro Phe Arg Arg Tyr Ser Arg Thr Phe Pro Thr Ile 100 105

Asn Ile Glu Pro Asp Ile Lys Arg Leu Leu Lys Val Ala Ile 120

<210> 244 <211> 150

<212> PRT

<213> Homo sapien

<400> 244

Met Thr Leu Gly Arg Glu Cys Arg Arg Val Lys Glu Phe His Val Val

Asp Leu Ser Leu Pro Pro Pro Thr Val His Ala Leu Cys Leu Phe Pro

Pro Gln Glu Asn Cys Gln Asn Glu Glu Ile Leu Asn Ser Leu Lys Tyr

Val Arg Pro Gly Gly Gly Tyr Gln Pro Thr Phe Thr Leu Val Gln Lys

Cys Glu Val Asn Gly Gln Asn Glu His Pro Val Phe Ala Tyr Leu Lys 70 75

Asp Lys Leu Pro Tyr Pro Tyr Asp Asp Pro Phe Ser Leu Met Thr Asp 85

Pro Lys Leu Ile Ile Trp Ser Pro Val Arg Arg Ser Asp Val Ala Trp 100 105 110

326

Asn Phe Glu Lys Phe Leu Ile Gly Pro Glu Gly Glu Pro Phe Arg Arg 115

Tyr Ser Arg Thr Phe Pro Thr Ile Asn Ile Glu Pro Asp Ile Lys Arg 130

Leu Leu Lys Val Ala Ile 145

<210> 245 <211> 186 <212> PRT

<213> Homo sapien

<400> 245

Met Glu Ser Gln Glu Pro Thr Glu Ser Ser Gln Asn Gly Lys Gln Tyr 10

Ile Ile Ser Glu Glu Leu Ile Ser Glu Gly Lys Trp Val Lys Leu Glu 25

Lys Thr Thr Tyr Met Asp Pro Thr Gly Lys Thr Arg Thr Trp Glu Ser 35

Val Lys Arg Thr Thr Arg Lys Glu Gln Thr Ala Asp Gly Val Ala Val 50

Ile Pro Val Leu Gln Arg Thr Leu His Tyr Glu Cys Ile Val Leu Val 65

Lys Gln Phe Arg Pro Pro Met Gly Gly Tyr Cys Ile Glu Phe Pro Ala

Gly Leu Ile Asp Asp Gly Glu Thr Pro Glu Ala Ala Leu Arg Glu

Leu Glu Glu Glu Thr Gly Tyr Lys Gly Asp Ile Ala Glu Cys Ser Pro 115 120 125

Ala Val Cys Met Asp Pro Gly Leu Ser Asn Cys Thr Ile His Ile Val 135

Thr Val Thr Ile Asn Gly Asp Asp Ala Glu Asn Ala Arg Pro Lys Pro 150

Lys Pro Gly Asp Gly Cys Val Ser Ala Val Met Lys Val Val Trp Leu 165

327

His Tyr Val Ser Trp Asn Leu Leu Leu Val

<210> 246

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Val Glu Thr Trp Gln Glu Gly Ser Leu Lys Ala Ser Cys Leu Tyr Gly 25 20

Gln Leu Pro Lys Phe Gln Asp Gly Asp Leu Thr Leu Tyr Gln Ser Asn 40

Thr Ile Leu Arg His Leu Gly Arg Thr Leu Gly Leu Tyr Gly Lys Asp

Gln Glu Ala Ala Leu Val Asp Met Val Asn Asp Gly Val Glu Asp 70

Leu Arg Cys Lys Tyr Ile Ser Leu Ile Tyr Thr Asn Tyr Glu Ala Gly 85

Lys Asp Asp Tyr Val Lys Ala Leu Pro Gly Gln Leu Lys Pro Phe Glu

Thr Leu Leu Ser Gln Asn Gln Gly Gly Lys Thr Phe Ile Val Gly Asp 120

Gln Ile Ser Phe Ala Asp Tyr Asn Leu Leu Asp Leu Leu Leu Ile His 135

Glu Val Leu Ala Pro Gly Cys Leu Asp Ala Phe Pro Leu Leu Ser Ala 150 155

Tyr Val Gly Arg Leu Ser Ala Arg Pro Lys Leu Lys Ala Phe Leu Ala

Ser Pro Glu Tyr Val Asn Leu Pro Ile Asn Gly Asn Gly Lys Gln 185 180

328

<210> 247

<211> 146

<212> PRT

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Met Leu Leu Ala Asp Gln Gly Gln Ser Trp Lys Glu Glu Val Val Thr

Val Glu Thr Trp Gln Glu Gly Ser Leu Lys Ala Ser Cys Leu Tyr Gly 25

Gln Leu Pro Lys Phe Gln Asp Gly Asp Leu Thr Leu Tyr Gln Ser Asn

Thr Ile Leu Arg His Leu Gly Arg Thr Leu Gly Leu Tyr Gly Lys Asp

Gln Gln Glu Ala Ala Leu Val Asp Met Val Asn Asp Gly Val Glu Asp

Leu Arg Cys Lys Tyr Ile Ser Leu Ile Tyr Thr Asn Tyr Glu Ala Gly 85 90

Lys Asp Asp Tyr Val Lys Ala Leu Pro Gly Gln Leu Lys Pro Phe Glu 100 105

Thr Leu Leu Ser Gln Asn Gln Gly Gly Lys Thr Phe Ile Val Gly Asp 115

Gln Ile Ser Phe Ala Asp Tyr Lys Leu Arg Thr Arg Arg Tyr Arg Ala

Arg Phe

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329 .

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Pro Tyr Thr Val Val Tyr Phe Pro Val Arg Gly Arg Cys Ala Ala Leu 20 25

Arg Met Leu Leu Ala Asp Gln Gly Gln Ser Trp Lys Glu Glu Val Val

Thr Val Glu Thr Trp Gln Glu Gly Ser Leu Lys Ala Ser Cys Leu Tyr

Gly Gln Leu Pro Lys Phe Gln Asp Gly Asp Leu Thr Leu Tyr Gln Ser 70

Asn Thr Ile Leu Arg His Leu Gly Arg Thr Leu Gly Leu Tyr Gly Lys

Asp Gln Gln Glu Ala Ala Leu Val Asp Met Val Asn Asp Gly Val Glu 105

Asp Leu Arg Cys Lys Tyr Ile Ser Leu Ile Tyr Thr Asn Tyr Glu Ala 120

Gly Lys Asp Asp Tyr Val Lys Ala Leu Pro Gly Gln Leu Lys Pro Phe 130 135 140

Glu Thr Leu Leu Ser Gln Asn Gln Gly Gly Lys Thr Phe Ile Val Gly 145

Asp Gln Ile Ser Phe Ala Asp Tyr Lys Leu Arg Xaa Arg Arg Tyr Arg

Ala Arg Phe

<210> 249

<211> 191 <212> PRT <213> Homo sapien

<400> 249

Met Leu Leu Ala Asp Gln Gly Gln Ser Trp Lys Glu Glu Val Val Thr 10

Val Glu Thr Trp Gln Glu Gly Ser Leu Lys Ala Ser Cys Leu Tyr Gly 25

330

Gln Leu Pro Lys Phe Gln Asp Gly Asp Leu Thr Leu Tyr Gln Ser Asn

Thr Ile Leu Arg His Leu Gly Arg Thr Leu Gly Leu Tyr Gly Lys Asp 55

Gln Gln Glu Ala Ala Leu Val Asp Met Val Asn Asp Gly Val Glu Asp 70

Leu Arg Cys Lys Tyr Ile Ser Leu Ile Tyr Thr Asn Tyr Glu Ala Gly 85 90

Lys Asp Asp Tyr Val Lys Ala Leu Pro Gly Gln Leu Lys Pro Phe Glu

Thr Leu Leu Ser Gln Asn Gln Gly Gly Lys Thr Phe Ile Val Gly Asp

Gln Ile Ser Phe Ala Asp Tyr Asn Leu Leu Asp Leu Leu Leu Ile His 135

Glu Val Leu Ala Pro Gly Cys Leu Asp Ala Phe Pro Leu Leu Ser Ala 155

Tyr Val Gly Arg Leu Ser Ala Arg Pro Lys Leu Lys Ala Phe Leu Ala 170

Ser Pro Glu Tyr Val Asn Leu Pro Ile Asn Gly Asn Gly Lys Gln 185 180

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Gly Ser Glu Ala Ala Arg Leu Arg Trp Ser Phe Ala Ala Ala Val Phe

Ala Thr Thr Asn Phe Ser Leu Phe Ala Thr Met Pro Pro Tyr Thr Val

Val Tyr Phe Pro Val Arg Gly Arg Cys Ala Ala Leu Arg Met Leu Leu 40

Ala Asp Gln Gly Gln Ser Trp Lys Glu Glu Val Val Thr Val Glu Thr

331

55 60 50

Trp Gln Glu Gly Ser Leu Lys Ala Ser Cys Leu Tyr Gly Gln Leu Pro 70 75

Lys Phe Gln Asp Gly Asp Leu Thr Leu Tyr Gln Ser Asn Thr Ile Leu

Arg His Leu Gly Arg Thr Leu Gly Leu Tyr Gly Lys Asp Gln Gln Glu

Ala Ala Leu Val Asp Met Val Asn Asp Gly Val Glu Asp Leu Arg Cys 120

Lys Tyr Ile Ser Leu Ile Tyr Thr Asn Tyr Glu Ala Gly Lys Asp Asp 135

Tyr Val Lys Ala Leu Pro Gly Gln Leu Lys Pro Phe Glu Thr Leu Leu

Ser Gln Asn Gln Gly Gly Lys Thr Phe Ile Val Gly Asp Gln Ile Ser

Phe Ala Asp Tyr Asn Leu Leu Asp Leu Leu Leu Ile His Glu Val Leu 185 180

Ala Pro Gly Cys Leu Asp Ala Phe Pro Leu Leu Ser Ala Tyr Val Gly 195 200 205

Arg Leu Ser Ala Arg Pro Lys Leu Lys Ala Phe Leu Ala Ser Pro Glu

Tyr Val Asn Leu Pro Ile Asn Gly Asn Gly Lys Gln 225 230

<210> 251

<211> 291 <212> PRT <213> Homo sapien

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Val Leu Cys Trp Tyr Cys Leu Val Leu Glu Leu Leu Ala Leu Gly 20 25

Arg Ala Val Leu Gly Pro Ser Gly Trp Leu Gly Ser Gly Pro Pro Ser 35 40 45

Gly Glu His Thr Cys Leu Gly Gly Ser Ala Val Gly Pro Phe Ser Ala 50 55 60

Pro Ser Gln Val Gly Phe Glu Val Leu Pro Gly Ala Ala Cys Leu Gln 65 70 75 80

Gly Pro Pro Val Leu Leu Gly Ser Ala Gly Gly Gln Val Ser Asp Ser 85 90 95

Arg Gly Phe Leu Ser Ser Pro Pro Cys Arg Pro Thr Pro Trp Ser Ile 100 105 110

Ser Gln Phe Glu Ala Ala Ala Arg Pro Trp Arg Met Leu Leu Ala Asp 115 120 125

Gln Gly Gln Ser Trp Lys Glu Glu Val Val Thr Val Glu Thr Trp Gln 130 135 140

Glu Gly Ser Leu Lys Ala Ser Cys Leu Tyr Gly Gln Leu Pro Lys Phe 145 150 155 160

Gln Asp Gly Asp Leu Thr Leu Tyr Gln Ser Asn Thr Ile Leu Arg His 165 170 175

Leu Gly Arg Thr Leu Gly Leu Tyr Gly Lys Asp Gln Gln Glu Ala Ala 180 185 190

Leu Val Asp Met Val Asn Asp Gly Val Glu Asp Leu Arg Cys Lys Tyr 195 200 205

Ile Ser Leu Ile Tyr Thr Asn Tyr Glu Ala Gly Lys Asp Asp Tyr Val 210 215 220

Lys Ala Leu Pro Gly Gln Leu Lys Pro Phe Glu Thr Leu Leu Ser Gln 225 230 235 240

Asn Gln Gly Gly Lys Thr Phe Ile Val Gly Asp Gln Ile Ser Phe Ala 245 250 255

Asp Tyr Asn Leu Leu Asp Leu Leu Leu Ile His Glu Val Leu Ala Pro 260 265 270

333

Gly Cys Leu Asp Ala Phe Arg Pro Ser Ser Arg Pro Ser Trp Pro Pro

Leu Ser Thr . 290

<210> 252 <211> 302 <212> PRT

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Asp Pro Gly Val Ala Ala Gly Arg Ala Gly Arg Met Ser Gln Gly Pro 10

Gly Val Pro Thr Gly Ser Gly Arg Tyr Pro Trp Val Leu Cys Trp Tyr

Cys Leu Val Leu Glu Leu Leu Ala Leu Gly Arg Ala Val Leu Gly

Pro Ser Gly Trp Leu Gly Ser Gly Pro Pro Ser Gly Glu His Thr Cys

Leu Gly Gly Ser Ala Val Gly Pro Phe Ser Ala Pro Ser Gln Val Gly 70 75

Phe Glu Val Leu Pro Gly Ala Ala Cys Leu Gln Gly Pro Pro Val Leu

Thr Gly Leu Arg Arg Gly Ala Gly Phe Arg Leu Pro Gly Leu Leu Val

Phe Ala Thr Met Pro Pro Tyr Thr Val Val Tyr Phe Pro Val Arg Gly

Arg Cys Ala Ala Leu Arg Met Leu Leu Ala Asp Gln Gly Gln Ser Trp 135

Lys Glu Glu Val Val Thr Val Glu Thr Trp Gln Glu Gly Ser Leu Lys 145

Ala Ser Cys Leu Tyr Gly Gln Leu Pro Lys Phe Gln Asp Gly Asp Leu

Thr Leu Tyr Gln Ser Asn Thr Ile Leu Arg His Leu Gly Arg Thr Leu 180 185

- Gly Leu Tyr Gly Lys Asp Gln Gln Glu Ala Ala Leu Val Asp Met Val
- Asn Asp Gly Val Glu Asp Leu Arg Cys Lys Tyr Ile Ser Leu Ile Tyr 215
- Thr Asn Tyr Glu Ala Gly Lys Asp Asp Tyr Val Lys Ala Leu Pro Gly 230
- Gln Leu Lys Pro Phe Glu Thr Leu Leu Ser Gln Asn Gln Gly Gly Lys
- Thr Phe Ile Val Gly Asp Gln Ile Ser Phe Ala Asp Tyr Asn Leu Leu 265
- Asp Leu Leu Leu Ile His Glu Val Leu Ala Pro Gly Cys Leu Asp Ala 280
- Phe Arg Pro Ser Ser Arg Pro Ser Trp Pro Pro Leu Ser Thr 295
- <210> 253 <211> 226
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- Val Leu Cys Trp Tyr Cys Leu Val Leu Glu Leu Leu Ala Leu Gly
- Arg Ala Val Leu Gly Pro Ser Gly Trp Leu Gly Ser Gly Pro Pro Ser
- Gly Glu His Thr Cys Leu Gly Gly Ser Ala Val Gly Pro Phe Ser Ala
- Pro Ser Gln Val Gly Phe Glu Val Leu Pro Gly Ala Ala Cys Leu Gln 70
- Gly Pro Pro Val Leu Leu Gly Ser Ala Gly Gly Gln Val Ser Asp Ser 90 95

335

Arg Gly Phe Leu Ser Ser Pro Pro Cys Arg Pro Thr Pro Trp Ser Ile 100 105 110

Ser Gln Phe Glu Ala Ala Ala Arg Pro Trp Arg Met Leu Leu Ala Asp 115 120 125

Gln Gly Gln Ser Trp Lys Glu Glu Val Val Thr Val Glu Thr Trp Gln 130 135 140

Glu Gly Ser Leu Lys Ala Ser Cys Leu Tyr Gly Gln Leu Pro Lys Phe 145 150 155 160

Gln Asp Gly Asp Leu Thr Leu Tyr Gln Ser Asn Thr Ile Leu Arg His 165 170 175

Leu Gly Arg Thr Leu Gly Leu Tyr Gly Lys Asp Gln Gln Glu Ala Ala 180 185 190

Leu Val Asp Met Val Asn Asp Gly Val Glu Asp Leu Arg Cys Lys Tyr 195 200 205

Ile Ser Leu Ile Tyr Thr Asn Tyr Ala Gln Ala Gln Gly Leu Pro Gly 210 215 220

Leu Pro 225

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Gly Val Pro Thr Gly Ser Gly Arg Tyr Pro Trp Val Leu Cys Trp Tyr 20 25 30

Cys Leu Val Leu Glu Leu Leu Leu Ala Leu Gly Arg Ala Val Leu Gly 35 40 45

Pro Ser Gly Trp Leu Gly Ser Gly Pro Pro Ser Gly Glu His Thr Cys
50 55

Leu Gly Gly Ser Ala Val Gly Pro Phe Ser Ala Pro Ser Gln Val Gly 65 70 75 80

Phe Glu Val Leu Pro Gly Ala Ala Cys Leu Gln Gly Pro Pro Val Leu

Thr Gly Leu Arg Arg Gly Ala Gly Phe Arg Leu Pro Gly Leu Leu Val 100 105

Phe Ala Thr Met Pro Pro Tyr Thr Val Val Tyr Phe Pro Val Arg Gly

Arg Cys Ala Ala Leu Arg Met Leu Leu Ala Asp Gln Gly Gln Ser Trp . 135

Lys Glu Glu Val Val Thr Val Glu Thr Trp Gln Glu Gly Ser Leu Lys 155 150

Ala Ser Cys Leu Tyr Gly Gln Leu Pro Lys Phe Gln Asp Gly Asp Leu 165 170 175

Thr Leu Tyr Gln Ser Asn Thr Ile Leu Arg His Leu Gly Arg Thr Leu 180

Gly Leu Tyr Gly Lys Asp Gln Gln Glu Ala Ala Leu Val Asp Met Val

Asn Asp Gly Val Glu Asp Leu Arg Cys Lys Tyr Ile Ser Leu Ile Tyr 215

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Xaa Arg Gly Gly Cys Xaa His Ala Pro Gly Gly Leu Ile Ala Xaa Ser
              20
                                     25
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Val Glu Ser Ala Pro Arg Tyr Ser Xaa Gly Pro Ala Leu Leu Pro Arg 40

Gln Pro Leu Lys Asp Ser Xaa Gln Gly Gly Thr Gly Gln Ala Gly Xaa

Arg Xaa Ser Gln Asn Leu Thr Arg Cys Ala Gly Arg Gly Leu 70

Gly Ala Xaa Phe Ala Pro Ser Pro Gly Asn Gly Cys Ala Arg Lys Glu

Tyr Cys Arg His Leu Asn Gly Leu Pro Gly Ile Phe Lys Gln Lys Ala 105

Lys Xaa Cys Cys Xaa Lys Ser Ile Ala Asp Gln Ala Ser Arg Phe Leu 120

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                                     25
Val Glu Ser Ala Pro Arg Xaa Ser Xaa Gly Pro Ala Leu Leu Pro Arg
Gln Pro Leu Lys Asp Ser Xaa Gln Gly Gly Thr Gly Gln Ala Gly Xaa
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340

Arg Xaa Ser Gln Asn Leu Thr Arg Cys Ala Gly Arg Gly Arg Gly Leu 70

Gly Ala Xaa Phe Ala Pro Ser Pro Gly Asn Gly Cys Ala Arg Lys Glu

Tyr Cys Arg His Leu Asn Gly Leu Pro Gly Ile Phe Lys Gln Lys Ala

Lys Xaa Cys Cys Xaa Lys Ser Ile Ala Asp Gln Ala Ser Arg Phe Leu 120

Xaa Ile Phe Phe Ile Ser 130

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                                          25
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Thr Ala Xaa Ser Gln Glu Thr Lys Glu Ser Xaa Xaa Glu Leu Ser

342

40 45 35

Glu Ser Arg Leu Lys Ala Phe Lys Val Xaa Leu Xaa Asp Val Phe Arg 55

Glu Ala His Ala Gln Ser Ile Gly Met Asn Arg Leu Thr Glu Ser Ile

Asn Arg Asp Ser Glu Glu Pro Phe Ser Ser Val Glu Ile Gln Ala Ala 85

Leu Ser Lys Met Gln Asp Asp Asn Gln Val Met Val Ser Glu Gly Ile 105 100

Ile Trp Xaa Val Gly Gly Gly Val Xaa Xaa Gly Xaa Gly Xaa Cys Xaa 120

<210> 258

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Xaa Xaa Gly Gly Lys Cys Leu Lys Xaa Thr Leu Xaa Lys Thr Ala Xaa
Ser Gln Glu Thr Lys Glu Ser Xaa Xaa Glu Leu Ser Glu Ser Arg
               20
                                         25
Leu Lys Ala Phe Lys Val Xaa Leu Xaa Asp Val Phe Arg Glu Ala His
          35
Ala Gln Ser Ile Gly Met Asn Arg Leu Thr Glu Ser Ile Asn Arg Asp
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55

Ser Glu Glu Pro Phe Ser Ser Val Glu Ile Gln Ala Ala Leu Ser Lys

Met Gln Asp Asp Asn Gln Val Met Val Ser Glu Gly Ile Ile Trp Xaa

Val Gly Gly Val Xaa Xaa Gly Xaa Gly Xaa Cys Xaa Glu Ser Leu

Phe Cys Val Ser His Ala Ser Xaa 115

<210> 259 <211> 254

<212> PRT

<213> Homo sapien

<400> 259

Met Arg Ile Ala Val Ile Cys Phe Cys Leu Leu Gly Ile Thr Cys Ala

Ile Pro Val Lys Gln Ala Asp Ser Gly Ser Ser Glu Glu Lys Gln Leu 25 30

Tyr Asn Lys Tyr Pro Asp Ala Val Ala Thr Trp Leu Asn Pro Asp Pro 35

Ser Gln Lys Gln Asn Leu Leu Ala Pro Gln Asn Ala Val Ser Ser Glu

Glu Thr Asn Asp Phe Lys Gln Glu Thr Leu Pro Ser Lys Ser Asn Glu 70

Ser His Asp His Met Asp Asp Met Asp Asp Glu Asp Asp Asp Asp His 90

Val Asp Ser Gln Asp Ser Ile Asp Ser Asn Asp Ser Asp Asp Val Asp 105

Asp Thr Asp Asp Ser His Gln Ser Asp Glu Ser His His Ser Asp Glu 115

Ser Asp Glu Leu Val Thr Asp Phe Pro Thr Asp Leu Pro Ala Thr Glu 130 135

345

Val Phe Thr Pro Val Val Pro Thr Val Asp Thr Tyr Asp Gly Arg Gly

Asp Ser Val Val Met Asp Leu Arg Ser Lys Ser Lys Leu Arg Arg 170

Pro Glu Tyr Ser Thr Leu Met Leu Gln Thr Arg Thr Ser Ala His Asn 180 185

Gly Lys Arg Gly Val Asp Met Val His Thr Arg Ala Pro Arg Gly Gln 195 200

Thr Asp Thr Ala Pro Arg Ala Ala Gly His Ala Asn Thr Lys Ser Ser 215

Ala Asp Gln Pro Asn Arg Asp Arg His Lys Thr Ala Asp Glu Lys Glu 235

Pro Glu Asp Glu Thr Gln Arg Ser Ala Thr Glu Gly His Lys 245

<210> 260

<211> 212

<212> PRT <213> Homo sapien

Ala Ser Leu Val Thr Ser Ser Asn Tyr Ile Ser Arg Lys Leu Glu Glu 5 10

Glu Ala Glu His Ser Ile Val Gly Thr Arg Leu Val Ser Gly Gln Leu 25

Gln Pro Ser Gln Pro Asn Ala Asp Gln Gly Lys Leu Thr Thr Met Arg

Ile Ala Val Ile Cys Phe Cys Leu Leu Gly Ile Thr Cys Ala Ile Pro 55

Val Lys Gln Ala Asp Ser Gly Ser Ser Glu Glu Lys Gln Leu Tyr Asn 70

Lys Tyr Pro Asp Ala Val Ala Thr Trp Leu Asn Pro Asp Pro Ser Gln

Lys Gln Asn Leu Leu Ala Pro Gln Asn Ala Val Ser Ser Glu Glu Thr 105 100

. 346

Asn Asp Phe Lys Gln Glu Thr Leu Pro Ser Lys Ser Asn Glu Ser His

Asp His Met Asp Asp Met Asp Asp Glu Asp Asp Asp His Val Asp 135

Ser Gln Asp Ser Ile Asp Ser Asn Asp Ser Asp Asp Val Asp Asp Thr

Asp Asp Ser His Gln Ser Asp Glu Ser His His Ser Asp Glu Ser Asp

Glu Leu Val Thr Asp Phe Pro Thr Asp Leu Pro Ala Thr Glu Val Phe 180 185 190

Thr Pro Val Val Pro Thr Val Asp Thr Tyr Asp Gly Arg Gly Asp Ser 205 200

Val Val Met Asp 210

<210> 261

<211> 240 <212> PRT <213> Homo sapien

<400> 261

Met Arg Ile Ala Val Ile Cys Phe Cys Leu Leu Gly Ile Thr Cys Ala

Ile Pro Val Lys Gln Ala Asp Ser Gly Ser Ser Glu Glu Lys Gln Leu

Tyr Asn Lys Tyr Pro Asp Ala Val Ala Thr Trp Leu Asn Pro Asp Pro 40

Ser Gln Lys Gln Asn Leu Leu Ala Pro Gln Thr Leu Pro Ser Lys Ser 50 55 60

Asn Glu Ser His Asp His Met Asp Asp Met Asp Asp Glu Asp Asp Asp

Asp His Val Asp Ser Gln Asp Ser Ile Asp Ser Asn Asp Ser Asp Asp 85 .

347

Val Asp Asp Thr Asp Asp Ser His Gln Ser Asp Glu Ser His His Ser

Asp Glu Ser Asp Glu Leu Val Thr Asp Phe Pro Thr Asp Leu Pro Ala 120 125 115

Thr Glu Val Phe Thr Pro Val Val Pro Thr Val Asp Thr Tyr Asp Gly 135

Arg Gly Asp Ser Val Val Met Asp Leu Arg Ser Lys Ser Lys Leu 150 155

Arg Arg Pro Glu Tyr Ser Thr Leu Met Leu Gln Thr Arg Thr Ser Ala

His Asn Gly Lys Arg Gly Val Asp Met Val His Thr Arg Ala Pro Arg 185

Gly Gln Thr Asp Thr Ala Pro Arg Ala Ala Gly His Ala Asn Thr Lys 195 200

Ser Ser Ala Asp Gln Pro Asn Arg Asp Arg His Lys Thr Ala Asp Glu

Lys Glu Pro Glu Asp Glu Thr Gln Arg Ser Ala Thr Glu Gly His Lys 230 235

<210> 262 <211> 198

<212> PRT

<213> Homo sapien

<400> 262

Ala Ser Leu Val Thr Ser Ser Asn Tyr Ile Ser Arg Lys Leu Glu Glu 10

Glu Ala Glu His Ser Ile Val Gly Thr Arg Leu Val Ser Gly Gln Leu 25

Gln Pro Ser Gln Pro Asn Ala Asp Gln Gly Lys Leu Thr Thr Met Arg

Ile Ala Val Ile Cys Phe Cys Leu Leu Gly Ile Thr Cys Ala Ile Pro 50

Val Lys Gln Ala Asp Ser Gly Ser Ser Glu Glu Lys Gln Leu Tyr Asn 70 75

Lys Tyr Pro Asp Ala Val Ala Thr Trp Leu Asn Pro Asp Pro Ser Gln

Lys Gln Asn Leu Leu Ala Pro Gln Thr Leu Pro Ser Lys Ser Asn Glu 100 105

Ser His Asp His Met Asp Asp Met Asp Asp Glu Asp Asp Asp Asp His

Val Asp Ser Gln Asp Ser Ile Asp Ser Asn Asp Ser Asp Val Asp

Asp Thr Asp Asp Ser His Gln Ser Asp Glu Ser His His Ser Asp Glu 155 150

Ser Asp Glu Leu Val Thr Asp Phe Pro Thr Asp Leu Pro Ala Thr Glu 165 170

Val Phe Thr Pro Val Val Pro Thr Val Asp Thr Tyr Asp Gly Arg Gly 185 190

Asp Ser Val Val Met Asp 195

<210> 263

<211> 170 <212> PRT <213> Homo sapien

<400> 263

Met Asp Asp Met Asp Asp Glu Asp Asp Asp His Val Asp Ser Gln

Asp Ser Ile Asp Ser Asn Asp Ser Asp Asp Val Asp Asp Thr Asp Asp

Ser His Gln Ser Asp Glu Ser His His Ser Asp Glu Ser Asp Glu Leu 40

Val Thr Asp Phe Pro Thr Asp Leu Pro Ala Thr Glu Val Phe Thr Pro 50

Val Val Pro Thr Val Asp Thr Tyr Asp Gly Arg Gly Asp Ser Val Val

349

Met Asp Leu Arg Ser Lys Ser Lys Leu Arg Arg Pro Glu Tyr Ser 90

Thr Leu Met Leu Gln Thr Arg Thr Ser Ala His Asn Gly Lys Arg Gly 100 105

Val Asp Met Val His Thr Arg Ala Pro Arg Gly Gln Thr Asp Thr Ala 115 120

Pro Arg Ala Ala Gly His Ala Asn Thr Lys Ser Ser Ala Asp Gln Pro 135

Asn Arg Asp Arg His Lys Thr Ala Asp Glu Lys Glu Pro Glu Asp Glu

Thr Gln Arg Ser Ala Thr Glu Gly His Lys

<210> 264 <211> 137 <212> PRT <213> Homo sapien

<400> 264

Ala Ser Pro Val Pro Tyr Gln Leu Asn Arg Leu Ile Leu Glu Val Leu 5 10

Arg Asp Pro Ser Gln Lys Gln Asn Leu Leu Ala Pro Gln Asn Ala Val 20 25

Ser Ser Glu Glu Thr Asn Asp Phe Lys Gln Glu Thr Leu Pro Ser Lys 40

Ser Asn Glu Ser His Asp His Met Asp Asp Met Asp Asp Glu Asp Asp

Asp Asp His Val Asp Ser Gln Asp Ser Ile Asp Ser Asn Asp Ser Asp 75 70

Asp Val Asp Asp Thr Asp Asp Ser His Gln Ser Asp Glu Ser His His 85 90

Ser Asp Glu Ser Asp Glu Leu Val Thr Asp Phe Pro Thr Asp Leu Pro

Ala Thr Glu Val Phe Thr Pro Val Val Pro Thr Val Asp Thr Tyr Asp 115 120

350

Gly Arg Gly Asp Ser Val Val Met Asp 130 135

<210> 265

<211> 156 <212> PRT <213> Homo sapien

<400> 265

Met Val Thr Pro Pro Ser Pro Pro Lys Ser Pro Pro Cys Met Gln Gly 5

Ile Glu Gly Ser Cys Arg Gly Asp Pro Val Arg Pro Ser Ala Ile Cys 20

Pro Pro Arg Leu Leu Asp Val Gly Val Gly Met Ser His Pro Pro Ala 40

Ala Ser His Gly Thr Ser Gly Thr Pro Glu Leu Pro Thr Trp Arg Leu

Leu Val Cys Glu Glu Pro Val Val Pro Val Pro Ala Gly Thr Gly Leu

Gly Leu Val Arg Pro Trp Gly Leu Arg Leu Val Phe Leu Cys Leu Asp 85

Leu His Ile Tyr Cys Ile Ala Gly Arg Asp Pro Gln Ala Cys Pro Pro

Cys Gln Asp Ser Ser Gly Ser Val Trp Val Pro His Ser Ala Pro Ile 120

Ser Pro Met Ser Pro Ala Gly Ala Gly Ser His Pro Ser Leu Leu Ala

Ala Ala Pro Ser Arg Pro Gly Ile Gly Ser Ala Arg 150 145

<210> 266 <211> 195

<212> PRT

<213> Homo sapien

<400> 266

Arg Val Leu Pro Val Arg Pro Cys Pro Ala Gln Cys His Leu Pro Pro

351

1 5 10 15

Glu Ala Ala Arg Cys Arg Cys Arg His Val Pro Pro Thr Arg Arg Leu 20 25 30

Pro Arg Thr Ser Gly Thr Pro Glu Leu Pro Thr Trp Arg Leu Leu Val 35 40 45

Cys Glu Glu Pro Val Val Pro Val Pro Ala Gly Thr Gly Leu Gly Leu 50 55 60

Val Arg Pro Gly Val Cys Ala Trp Ser Phe Cys Ala Trp Ile Cys Ile 65 70 75 80

Phe Ile Ala Leu Leu Val Glu Thr Pro Arg Pro Val His Pro Ala Lys 85 90 95

Thr Pro Gln Ala Ala Cys Gly Ser Arg Thr Leu Pro Pro Phe Pro Arg 100 105 110

Cys Pro Leu Arg Ala Arg Ala Ala Thr Gln Ala Cys Trp Leu Arg Pro 115 120 125

Pro Leu Gly Gln Ala Leu Ala Gln Pro Ala Glu Trp Gly Val Val Gly 130 135 140

Gln Ser Pro Arg Ser Trp Ala Pro Ala Gln Ala His Arg Ala Arg Pro 145 150 155 160

His Pro Ala Ala Pro Arg Thr Ala Thr Arg Gly Val Leu Pro Leu Cys 165 170 175

Pro Ala Pro Gly Thr Asn Ser Met Phe Gly Val Cys Leu Cys Leu Phe 180 185 190

Phe Lys Lys 195

<210> 267

<211> 376

<212> PRT

<213> Homo sapien

<400> 267

Met Ser Ile Leu Lys Ile His Ala Arg Glu Ile Phe Asp Ser Arg Gly
1 10 15

Asn Pro Thr Val Glu Val Asp Leu Phe Thr Ser Lys Gly Leu Phe Arg 20 25 30

Ala Ala Val Pro Ser Gly Ala Ser Thr Gly Ile Tyr Glu Ala Leu Glu 35 40 45

Leu Arg Asp Asn Asp Lys Thr Arg Tyr Met Gly Lys Gly Val Ser Lys 50 55 60

Ala Val Glu His Ile Asn Lys Thr Ile Ala Pro Ala Leu Val Ser Lys 65 70 75 80

Lys Leu Asn Val Thr Glu Gln Glu Lys Ile Asp Lys Leu Met Ile Glu 85 90 95

Met Asp Gly Thr Glu Asn Lys Ser Lys Phe Gly Ala Asn Ala Ile Leu 100 105 110

Gly Val Ser Leu Ala Val Cys Lys Ala Gly Ala Val Glu Lys Gly Val 115 120 125

Pro Leu Tyr Arg His Ile Ala Asp Leu Ala Gly Asn Ser Glu Val Ile 130 135 140

Leu Pro Val Pro Ala Phe Asn Val Ile Asn Gly Gly Ser His Ala Gly 145 150 155 160

Asn Lys Leu Ala Met Gln Glu Phe Met Ile Leu Pro Val Gly Ala Ala 165 170 175

Asn Phe Arg Glu Ala Met Arg Ile Gly Ala Glu Val Tyr His Asn Leu 180 185 190

Lys Asn Val Ile Lys Glu Lys Tyr Gly Lys Asp Ala Thr Asn Val Gly 195 200 205

Asp Glu Gly Gly Phe Ala Pro Asn Ile Leu Glu Asn Lys Glu Gly Leu 210 215 220

Glu Leu Leu Lys Thr Ala Ile Gly Lys Ala Gly Tyr Thr Asp Lys Val 225 230 235 240

Val Ile Gly Met Asp Val Ala Ala Ser Glu Phe Phe Arg Ser Gly Lys 245 250 255

353

Tyr Asp Leu Asp Phe Lys Ser Pro Asp Asp Pro Ser Arg Tyr Ile Ser 260 265 270

Pro Asp Gln Leu Ala Asp Leu Tyr Lys Ser Phe Ile Lys Asp Tyr Pro 275 280

Val Val Ser Ile Glu Asp Pro Phe Asp Gln Asp Asp Trp Gly Ala Trp 290 295

Gln Lys Phe Thr Ala Ser Ala Gly Ile Gln Val Val Gly Asp Asp Leu

Thr Val Thr Asn Pro Lys Arg Ile Ala Lys Ala Arg Glu Arg Glu Val

Leu Gln Leu Pro Pro Ala Gln Ser Gln Pro Asp Trp Leu Arg Asp Arg

Val Ser Ser Gly Val Gln Ala Gly Pro Gly Gln Trp Leu Gly Arg His 360

Gly Val Ser Ser Phe Gly Gly Asp

<210> 268 <211> 404

<212> PRT

<213> Homo sapien

<400> 268

Met Ser Ile Leu Lys Ile His Ala Arg Glu Ile Phe Asp Ser Arg Gly

Asn Pro Thr Val Glu Val Asp Leu Phe Thr Ser Lys Gly Leu Phe Arg 25

Ala Ala Val Pro Ser Gly Ala Ser Thr Gly Ile Tyr Glu Ala Leu Glu 40

Leu Arg Asp Asn Asp Lys Thr Arg Tyr Met Gly Lys Gly Val Ser Lys

Ala Val Glu His Ile Asn Lys Thr Ile Ala Pro Ala Leu Val Ser Lys

Lys Leu Asn Val Thr Glu Gln Glu Lys Ile Asp Lys Leu Met Ile Glu 85 90

Met Asp Gly Thr Glu Asn Lys Ser Lys Phe Gly Ala Asn Ala Ile Leu 100 105 110

Gly Val Ser Leu Ala Val Cys Lys Ala Gly Ala Val Glu Lys Gly Val

Pro Leu Tyr Arg His Ile Ala Asp Leu Ala Gly Asn Ser Glu Val Ile 130 135 140

Leu Pro Val Pro Ala Phe Asn Val Ile Asn Gly Gly Ser His Ala Gly 145 150 155 160

Asn Lys Leu Ala Met Gln Glu Phe Met Ile Leu Pro Val Gly Ala Ala 165 170 175

Asn Phe Arg Glu Ala Met Arg Ile Gly Ala Glu Val Tyr His Asn Leu 180 185 190

Lys Asn Val Ile Lys Glu Lys Tyr Gly Lys Asp Ala Thr Asn Val Gly 195 200 205

Asp Glu Gly Gly Phe Ala Pro Asn Ile Leu Glu Asn Lys Glu Gly Leu 210 215 220

Glu Leu Leu Lys Thr Ala Ile Gly Lys Ala Gly Tyr Thr Asp Lys Val 225 230 235 240

Val Ile Gly Met Asp Val Ala Ala Ser Glu Phe Phe Arg Ser Gly Lys 245 250 255

Tyr Asp Leu Asp Phe Lys Ser Pro Asp Asp Pro Ser Arg Tyr Ile Ser 260 265 270

Pro Asp Gln Leu Ala Asp Leu Tyr Lys Ser Phe Ile Lys Asp Tyr Pro 275 280 285

Val Val Ser Ile Glu Asp Pro Phe Asp Gln Asp Asp Trp Gly Ala Trp
290 295 300

Gln Lys Phe Thr Ala Ser Ala Gly Ile Gln Val Val Gly Asp Asp Leu 305 310 315 320

Thr Val Thr Asn Pro Lys Arg Ile Ala Lys Ala Arg Glu Arg Glu Val 325 330 335

355

Leu Gln Leu Pro Pro Ala Gln Ser Gln Pro Asp Trp Leu Arg Asp Gln 345

Leu Ala Asp Leu Tyr Lys Ser Phe Ile Lys Asp Tyr Pro Val Val Ser 360

Ile Glu Asp Pro Phe Glu Leu Pro Gly Ala Leu Leu Ala Ala Leu Ala

Leu Gln Ser Cys Asn Trp Pro Lys Ser Leu Phe Phe Ser Pro His Phe 390

Pro Pro Ser Val

<210> 269

<211> 113 <212> PRT

<213> Homo sapien

<400> 269

Met Thr Thr Ser Gln Lys His Arg Asp Phe Val Ala Glu Pro Met Gly

Glu Lys Pro Val Gly Ser Leu Ala Gly Ile Gly Glu Val Leu Gly Lys

Lys Leu Glu Glu Arg Gly Phe Asp Lys Val Trp Gly Gly Cys Val Tyr 40

Leu Val Gln Ala Ala Gly Gly Arg Glu Val Ile Pro Ser Ala Gly Gly 50 55

Trp Thr Val Arg Tyr Asn Leu Lys Arg Leu Pro Glu Pro Gly His Leu 70

Val Glu Arg Arg Gly Gly Gln Asn Pro Arg Cys Phe Leu Gly Leu Cys

Ala Leu Asn Gly Thr Gly Met Ala Val Leu Leu Leu Ser Leu Thr Glu 105

His

<210> 270

PCT/US2004/011104 WO 2004/092338

356

<211> 30

<212> PRT

<213> Homo sapien

<400> 270

Thr Arg Gly Ser Thr Asp Ala Trp Val Asp Pro Arg Val Arg Gln Met

Thr Asp Leu Val Thr Pro Pro Ala Asn Ile Gln Ser Gly Met 25

<210> 271

<211> 66

<212> PRT <213> Homo sapien

<400> 271

Pro Thr Trp Ser Leu Leu Leu Pro Thr Phe Ser Leu Val Cys Glu Ala 10

Cys Val Lys Gln Glu Leu Leu Glu Leu Gln Gly Gln Gly Ala Ile Ile

Pro Ala Trp Glu Ser Trp Lys Thr Ser Cys Arg Ser Gln Arg Ser Ile

Leu Thr Leu Lys Met Gly Arg Met Phe Phe Leu Arg Thr Asn Ser Phe 55

Val Phe

<210> 272

<211> 249

<212> PRT

<213> Homo sapien

<400> 272

Met Thr Thr Ile Arg Gln Phe Thr Ser Ser Ser Ile Lys Gly

Ser Ser Gly Leu Gly Gly Gly Ser Ser Arg Thr Ser Cys Arg Leu Ser

Gly Gly Leu Gly Ala Gly Ser Cys Arg Leu Gly Ser Ala Gly Gly Leu 40

Gly Ser Thr Leu Gly Gly Ser Ser Tyr Ser Ser Cys Tyr Ser Phe Gly

357

50 55 60

Ser Gly Gly Gly Tyr Gly Ser Ser Phe Gly Gly Val Asp Gly Leu Leu 70 75

Ala Gly Gly Glu Lys Ala Thr Met Gln Asn Leu Asn Asp Arg Leu Ala

Ser Tyr Leu Asp Lys Val Arg Ala Leu Glu Glu Ala Asn Thr Glu Leu

Glu Val Lys Ile Arg Asp Trp Tyr Gln Arg Gln Ala Pro Gly Pro Ala 120

Arg Asp Tyr Ser Gln Tyr Tyr Arg Thr Ile Glu Glu Leu Gln Asn Lys

Ile Leu Thr Ala Thr Val Asp Asn Ala Asn Ile Leu Leu Gln Ile Asp 150

Asn Ala Arg Leu Ala Ala Asp Asp Phe Arg Thr Lys Phe Glu Thr Glu 170

Gln Gly Leu Arg Leu Ser Val Glu Ala Asp Ile Asn Gly Leu Arg Gln 180 185 190

Gly Ala Gly Glu Glu Trp Pro Trp Gln Lys Arg Asp Arg Glu Met Arg 195 200

Asn Gly Arg Thr Gln Gly Glu Pro Ala Thr Glu Glu Asn Pro Gly Gly

Asp Glu Thr Leu Lys Pro Gly Gly Gly Asp Thr Ala Gly Trp Pro Pro 235

Gln Gly Gly Ala Asn Gln Ile Gly 245

<210> 273

<211> 247

<212> PRT

<213> Homo sapien

<220>

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358

<400> 273

Pro Thr Gln Leu Gly Ala Pro Leu Leu Ser Ser Pro Ser Pro Val Cys
1 5 10 15

Leu Pro Pro Ala Ala Ala Thr Met Thr Thr Ile Arg Gln Phe Thr 20 25 30

Ser Ser Ser Ser Ile Lys Gly Ser Ser Gly Leu Gly Gly Gly Ser Ser 35 40 45

Arg Thr Ser Cys Arg Leu Ser Gly Gly Leu Gly Ala Gly Ser Cys Arg
50 55 60

Leu Gly Ser Ala Gly Gly Leu Gly Ser Thr Leu Gly Gly Ser Ser Tyr 65 70 75 80

Ser Ser Cys Tyr Ser Phe Gly Ser Gly Gly Gly Tyr Gly Ser Ser Phe 85 90 95

Gly Gly Val Asp Gly Leu Leu Ala Gly Gly Glu Lys Ala Thr Met Gln 100 105 110

Asn Leu Asn Asp Arg Leu Ala Ser Tyr Leu Asp Lys Val Arg Ala Leu 115 120 125

Glu Glu Ala Asn Thr Glu Leu Glu Val Lys Ile Arg Asp Trp Tyr Gln 130 135 140

Arg Gln Ala Pro Gly Pro Ala Arg Asp Tyr Ser Gln Tyr Tyr Arg Thr 145 150 155 160

Ile Glu Glu Leu Gln Asn Lys Ile Leu Thr Ala Thr Val Asp Asn Ala
165 170 175

Asn Ile Leu Leu Gln Ile Asp Asn Ala Arg Leu Ala Ala Asp Asp Phe
180 185 190

Arg Thr Lys Phe Glu Thr Glu Gln Gly Leu Arg Leu Ser Val Glu Ala 195 200 205

Asp Ile Asn Gly Leu Arg Gln Gly Ala Gly Lys Met Xaa Leu Ala Glu 210 215 220

Ala Gly Pro Gly Asp Ala Lys Trp Glu Asn Pro Arg Gly Ala Gly Tyr 225 230 235 240

359

Gly Arg Lys Pro Arg Gly Gly 245

<210> 274 <211> 156 <212> PRT <213> Homo sapien

<400> 274

Met Gln Cys Phe Ser Phe Ile Lys Thr Met Met Ile Leu Phe Asn Leu

Leu Ile Phe Leu Cys Gly Ala Ala Leu Leu Ala Val Gly Ile Trp Val

Ser Ile Asp Gly Ala Ser Phe Leu Lys Ile Phe Gly Pro Leu Ser Ser

Ser Ala Met Gln Phe Val Asn Val Gly Tyr Phe Leu Ile Ala Ala Gly

Val Val Val Phe Ala Leu Gly Phe Leu Gly Cys Tyr Gly Ala Lys Thr

Glu Ser Lys Cys Ala Leu Val Thr Phe Phe Phe Ile Leu Leu Leu Ile

Phe Ile Ala Glu Val Ala Ala Ala Val Val Ala Leu Val Tyr Thr Thr

Met Val Arg His Trp Asp Gly Gly Arg Glu Glu Asp Trp Ala Lys Pro

Trp Glu Trp Ala Val Ala Cys Glu Trp Pro Pro Ser Val Pro Ala Pro

Lys His Trp Pro Ala Ser Pro Arg Leu Ser Thr Ser

<210> 275

<211> 295 <212> PRT <213> Homo sapien

<400> 275

Met Gln Phe Val Asn Val Gly Tyr Phe Leu Ile Ala Ala Gly Val Val

1 5 10 15

Val Phe Ala Leu Gly Phe Leu Gly Cys Tyr Gly Ala Lys Thr Glu Ser 20 25 30

Lys Cys Ala Leu Val Thr Val Cys Glu Thr Gln Leu His Arg Leu Met 35 40 45

Thr Lys Ser Pro Leu Ala Leu Asp Thr Arg Pro Trp Asp Ser Gln Thr 50 55 60

Leu Leu Trp Thr Pro Leu Gly Ser Gly Phe Cys Leu Thr Phe Pro Gly 65 70 75 80

Gly Gly Leu Gly Gln Gly Gly His Glu Gly Leu Ser Leu Pro Lys Thr 85 90 95

Gln Thr Pro Val Pro His Ser Phe Phe Phe Ile Leu Leu Ile Phe 100 105 110

Ile Ala Glu Val Ala Ala Ala Val Val Ala Leu Val Tyr Thr Met
115 120 125

Val Arg His Trp Asp Gly Gly Arg Glu Glu Asp Trp Ala Lys Pro Trp 130 135 140

Glu Trp Ala Val Ala Cys Glu Trp Pro Pro Ser Val Pro Ala Pro Lys 145 150 155 160

His Trp Pro Ala Phe Thr Gln Ala Glu His Phe Leu Thr Leu Leu Val
165 170 175

Val Pro Ala Ile Lys Lys Asp Tyr Gly Ser Gln Glu Asp Phe Thr Gln 180 185 190

Val Trp Asn Thr Thr Met Lys Gly Leu Lys Cys Cys Gly Phe Thr Asn 195 200 205

Tyr Thr Asp Phe Glu Asp Ser Pro Tyr Phe Lys Glu Asn Ser Ala Phe 210 215 220

Pro Pro Phe Cys Cys Asn Asp Asn Val Thr Asn Thr Ala Asn Glu Thr 225 230 235

Cys Thr Lys Gln Lys Ala His Asp Gln Lys Val Glu Gly Cys Phe Asn 245 250 255

361

Gln Leu Leu Tyr Asp Ile Arg Thr Asn Ala Val Thr Val Gly Gly Val 265

Ala Ala Gly Ile Gly Gly Leu Glu Leu Ala Ala Met Ile Val Ser Met 280

Tyr Leu Tyr Cys Asn Leu Gln

<210> 276

<211> 207

<212> PRT <213> Homo sapien

<400> 276

Pro Leu Ser Pro Gln Leu Cys Gly Ala Ala Leu Leu Ala Val Gly Ile

Trp Val Ser Ile Asp Gly Ala Ser Phe Leu Lys Ile Phe Gly Pro Leu

Ser Ser Ser Ala Met Gln Phe Val Asn Val Gly Tyr Phe Leu Ile Ala 40

Ala Gly Val Val Val Phe Ala Leu Gly Phe Leu Gly Cys Tyr Gly Ala

Lys Thr Glu Ser Lys Cys Ala Leu Val Thr Val Cys Glu Thr Gln Leu

His Arg Leu Met Thr Lys Ser Pro Leu Ala Leu Asp Thr Arg Pro Trp

Asp Ser Gln Thr Leu Leu Trp Thr Pro Leu Gly Ser Gly Phe Cys Leu 100

Thr Phe Pro Gly Gly Gly Leu Gly Gln Gly Gly His Glu Gly Leu Ser 115 120

Leu Pro Lys Thr Gln Thr Pro Val Pro His Ser Phe Phe Phe Ile Leu 130 135

Leu Leu Ile Phe Ile Ala Glu Val Ala Ala Val Val Ala Leu Val 145

362

Tyr Thr Thr Met Val Arg His Trp Asp Gly Gly Arg Glu Glu Asp Trp

Ala Lys Pro Trp Glu Trp Ala Val Ala Cys Glu Trp Pro Pro Ser Val 180

Pro Ala Pro Lys His Trp Pro Ala Ser Pro Arg Leu Ser Thr Ser 200

<210> 277

<211> 110

<212> PRT

<213> Homo sapien

<400> 277

Gly Arg Leu Leu Leu Leu Asn Ser Arg Pro Arg Arg Leu Lys Gly Leu

Lys Cys Cys Gly Phe Thr Asn Tyr Thr Asp Phe Glu Asp Ser Pro Tyr

Phe Lys Glu Asn Ser Ala Phe Pro Pro Phe Cys Cys Asn Asp Asn Val

Thr Asn Thr Ala Asn Glu Thr Cys Thr Lys Gln Lys Ala His Asp Gln 55 50

Lys Val Glu Gly Cys Phe Asn Gln Leu Leu Tyr Asp Ile Arg Thr Asn 70

Ala Val Thr Val Gly Gly Val Ala Ala Gly Ile Gly Gly Leu Glu Leu

Ala Ala Met Ile Val Ser Met Tyr Leu Tyr Cys Asn Leu Gln

<210> 278

<211> 110 <212> PRT <213> Homo sapien

<220>

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<400> 278

Gly Arg Leu Leu Leu Asn Ser Arg Pro Arg Arg Leu Xaa Gly Leu

363

1 5 10 15

Lys Cys Cys Gly Phe Thr Asn Tyr Thr Asp Phe Glu Asp Ser Pro Tyr 20 25 30

Phe Lys Glu Asn Ser Ala Phe Pro Pro Phe Cys Cys Asn Asp Asn Val

Thr Asn Thr Ala Asn Glu Thr Cys Thr Lys Gln Lys Ala His Asp Gln 50 55 60

Lys Val Glu Gly Cys Phe Asn Gln Leu Leu Tyr Asp Ile Arg Thr Asn 65 70 75 80

Ala Val Thr Val Gly Gly Val Ala Ala Gly Ile Gly Gly Leu Glu Leu 85 90 95

Ala Ala Met Ile Val Ser Met Tyr Leu Tyr Cys Asn Leu Gln 100 105 110

<210> 279

<211> 156

<212> PRT

<213> Homo sapien

<400> 279

Met Gln Cys Phe Ser Phe Ile Lys Thr Met Met Ile Leu Phe Asn Leu 1 5 10 15

Leu Ile Phe Leu Cys Gly Ala Ala Leu Leu Ala Val Gly Ile Trp Val 20 25 30

Ser Ile Asp Gly Ala Ser Phe Leu Lys Ile Phe Gly Pro Leu Ser Ser 35 40 45

Ser Ala Met Gln Phe Val Asn Val Gly Tyr Phe Leu Ile Ala Ala Gly 50 60

Val Val Val Phe Ala Leu Gly Phe Leu Gly Cys Tyr Gly Ala Lys Thr 65 70 75 80

Glu Ser Lys Cys Ala Leu Val Thr Phe Phe Phe Ile Leu Leu Leu Ile 85 90 95

Phe Ile Ala Glu Val Ala Ala Ala Val Val Ala Leu Val Tyr Thr Thr

364

Met Val Arg His Trp Asp Gly Gly Arg Glu Glu Asp Trp Ala Lys Pro 120

Trp Glu Trp Ala Val Ala Cys Glu Trp Pro Pro Ser Val Pro Ala Pro

Lys His Trp Pro Ala Ser Pro Arg Leu Ser Thr Ser 150

<210> 280 <211> 171

<212> PRT

<213> Homo sapien

<400> 280

Met Leu Glu Arg Arg Ile Val Met Asp Ala Trp Ser Arg Pro Arg Tyr

Cys Phe Gly Leu Val Tyr Tyr Val Leu Val Gly Leu Thr Val Leu Ser 25

Gln Val Pro Met Asp Gly Arg Asn Ala Tyr Ile Thr Gly Lys Asn Leu 40

Leu Met Gln Ala Arg Trp Phe His Ile Leu Gly Met Met Phe Ile

Trp Ser Ser Ala His Gln Tyr Lys Cys His Val Ile Leu Gly Asn Leu

Arg Lys Asn Lys Ala Gly Val Val Ile His Cys Asn His Arg Ile Pro

Phe Gly Asp Trp Phe Glu Tyr Val Ser Ser Pro Asn Tyr Leu Ala Glu 100

Leu Met Ile Tyr Val Ser Met Ala Val Thr Phe Gly Phe His Asn Leu 115 120

Thr Trp Trp Leu Val Val Thr Asn Val Phe Phe Asn Gln Ala Leu Ser 135

Ala Phe Leu Ser His Gln Phe Tyr Lys Ser Lys Phe Val Ser Tyr Pro 145 150 155 160

Lys His Arg Lys Ala Phe Leu Pro Phe Leu Phe

WO 2004/092338

365

PCT/US2004/011104

165 170

<210> 281

<211> 101

<212> PRT

<213> Homo sapien

<400> 281

Met Ile Thr His Gly Ser Asp Thr Gly Lys Lys Arg Ile Arg Arg Gly

Gly Asn Ile Leu Val Ala Lys Glu His Pro Arg Thr Ile Arg Ala Val

Gly Ala Pro Asn Asn Val Val Gly Asp Thr Asp His Pro His Arg Arg 40

Asp Tyr Ile Arg Ala Pro Leu Glu Pro Arg Thr Ile Met Gln Ile Leu

Arg Arg Gly Tyr Cys Gly Arg Leu Asn Arg Gln Ala Ala Ser Asn Gly

Asp Pro Ala Gly Arg Arg Leu Gly Asp Ser Gly Lys Arg Arg Leu Ser

His Leu Phe Ser Arg 100

<210> 282

<211> 120 <212> PRT

<213> Homo sapien

<400> 282

Ile Lys Ser Glu Thr Ser Thr Thr Ser Leu Lys Trp Ala Glu Ser Leu 5

Leu Leu Thr Leu Asp Leu Glu Lys Pro Val Ser Leu Leu Leu Ser Val 20

Thr Asn Leu Tyr Ser Lys Asn Ser Ala Gln Phe Ser Thr Ile Leu Gln

Thr Leu Ser Phe Pro Ala Thr Phe Thr Pro Ser Pro Ser Ile Pro Leu 55

366

Ser Ser Ala Tyr Phe Phe Phe Phe Ser Asp Arg Val Ser Leu Cys Arg 65 70 75 80

Pro Gly Arg Ser Ala Val Ala Gln Ser Trp Ala His Cys Ser Leu Asn 85 90 95

Leu Pro Gly Ser Ser Asp Ser Pro Ala Ser Ala Pro Gln Val Ala Gly
100 105 110

Thr Thr Ser Ala His His His Ala 115 120

<210> 283

<211> 386

<212> PRT

<213> Homo sapien

<400> 283

Asn Leu Asp Trp Ala Gly Pro Leu Leu Cys His Leu Lys Gly Leu Gly 1 5 10 15

His Ala Ser Leu Ser Ser Trp Glu Thr Leu Thr Gly Ser Leu Gly Ser 20 25 30

Gln Ser Ile Lys Trp Arg Arg Phe Leu Pro Ser Glu Pro Thr Leu Leu 35 40 45

Gly Phe Ser Gly Gln Ile Ser Pro Gly Pro Gly Ser Ala Arg Arg Gly 50 55 60

Thr Gly Pro Pro Ser Ala Ser Asp Leu Arg Ala Pro Gly His Ser Pro 65 70 75 80

Gly His Ser Pro Ala His Leu Pro Arg Pro Arg Pro Pro Arg Ala Pro 85 90 95

Ala Gly Ser Ala Pro Ala Ile Cys Pro Thr Gly Arg Ala Pro Ser Trp
100 105 110

Pro Ala Pro Ala Arg His Asp Arg Cys Pro Pro Leu Ala Phe Leu Thr 115 120 125

Gln Gly Leu Arg Trp Leu Arg Ser Pro Gly Ser Cys Arg Gln Gly Gln 130 135 140

Glu Gly Ser Gly Thr Trp Lys Met Arg Pro Leu Ala Gly Gly Leu Leu 145 150 155 160

367

Lys Val Val Phe Val Val Phe Ala Ser Leu Cys Ala Trp Tyr Ser Gly 165 170 175

Tyr Leu Leu Ala Glu Leu Ile Pro Asp Ala Pro Leu Ser Ser Ala Ala 180 185 190

Tyr Ser Ile Arg Ser Ile Gly Glu Arg Pro Val Leu Lys Ala Pro Val 195 200 205

Pro Lys Arg Gln Lys Cys Asp His Trp Thr Pro Cys Pro Ser Asp Thr 210 215 220

Tyr Ala Tyr Arg Leu Leu Ser Gly Gly Gly Arg Ser Lys Tyr Ala Lys 225 230 235 240

Ile Cys Phe Glu Asp Asn Leu Leu Met Gly Glu Gln Leu Gly Asn Val 245 250 255

Ala Arg Gly Ile Asn Ile Ala Ile Val Asn Tyr Val Thr Gly Asn Val 260 265 270

Thr Ala Thr Arg Cys Phe Asp Met Tyr Glu Gly Asp Asn Ser Gly Pro 275 280 285

Met Thr Lys Phe Ile Gln Ser Ala Ala Pro Lys Ser Leu Leu Phe Met 290 295 300

Val Thr Tyr Asp Asp Gly Ser Thr Arg Leu Asn Asn Asp Ala Lys Asn 305 310 315 320

Ala Ile Glu Ala Leu Gly Ser Lys Glu Ile Arg Asn Met Lys Phe Arg 325 330 335

Ser Ser Trp Val Phe Ile Ala Ala Lys Gly Leu Glu Leu Pro Ser Glu 340 345 350

Ile Gln Arg Glu Lys Ile Asn His Ser Asp Ala Lys Asn Asn Arg Tyr 355 360 365

Ser Gly Trp Pro Ala Glu Ile Gln Ile Glu Gly Cys Ile Pro Lys Glu 370 380

Arg Ser 385

<210> 284

<211> 296 <212> PRT <213> Homo sapien

<400> 284

Asn Leu Asp Trp Ala Gly Pro Leu Leu Cys His Leu Lys Gly Leu Gly

His Ala Ser Leu Ser Ser Trp Glu Thr Leu Thr Gly Ser Leu Gly Ser 25

Gln Ser Ile Lys Trp Arg Arg Phe Leu Pro Ser Glu Pro Thr Leu Leu

Gly Phe Ser Gly Gln Ile Ser Pro Gly Pro Gly Ser Ala Arg Arg Gly

Thr Gly Pro Pro Ser Ala Ser Asp Leu Arg Ala Pro Gly His Ser Pro

Gly His Ser Pro Ala His Leu Pro Arg Pro Arg Pro Pro Arg Ala Pro

Ala Gly Ser Ala Pro Ala Ile Cys Pro Thr Gly Arg Ala Pro Ser Trp

Pro Ala Pro Ala Arg His Asp Arg Cys Pro Pro Leu Ala Phe Leu Thr

Gln Gly Leu Arg Trp Leu Arg Ser Pro Gly Ser Cys Arg Gln Gly Gln 130 135 140

Glu Gly Ser Gly Thr Trp Lys Met Arg Pro Leu Ala Gly Gly Leu Leu 145 150

Lys Val Val Phe Val Val Phe Ala Ser Leu Cys Ala Trp Tyr Ser Gly

Tyr Leu Leu Ala Glu Leu Ile Pro Asp Ala Pro Leu Ser Ser Ala Ala

Tyr Ser Ile Arg Ser Ile Gly Glu Arg Pro Val Leu Lys Ala Pro Val 200

Pro Lys Arg Gln Lys Cys Asp His Trp Thr Pro Cys Pro Ser Asp Thr

210 215 220

Tyr Ala Tyr Arg Leu Leu Ser Gly Gly Gly Arg Ser Lys Tyr Ala Lys 230 235

Ile Cys Phe Glu Asp Asn Leu Leu Met Gly Glu Gln Leu Gly Asn Val

Ala Arg Gly Ile Asn Ile Ala Ile Val Asn Tyr Val Thr Gly Asn Val

Thr Ala Thr Arg Cys Phe Asp Met Tyr Glu Gly Val Phe Leu Asp Gly 280

Leu Ser Phe Leu Gly Thr Asp Ser 290

<210> 285

<211> 338

<212> PRT <213> Homo sapien

<400> 285

Asn Leu Asp Trp Ala Gly Pro Leu Leu Cys His Leu Lys Gly Leu Gly 10

His Ala Ser Leu Ser Ser Trp Glu Thr Leu Thr Gly Ser Leu Gly Ser

Gln Ser Ile Lys Trp Arg Arg Phe Leu Pro Ser Glu Pro Thr Leu Leu 40

Gly Phe Ser Gly Gln Ile Ser Pro Gly Pro Gly Ser Ala Arg Arg Gly 55

Thr Gly Pro Pro Ser Ala Ser Asp Leu Arg Ala Pro Gly His Ser Pro

Gly His Ser Pro Ala His Leu Pro Arg Pro Arg Pro Pro Arg Ala Pro 85

Ala Gly Ser Ala Pro Ala Ile Cys Pro Thr Gly Arg Ala Pro Ser Trp 105

Pro Ala Pro Ala Arg His Asp Arg Cys Pro Pro Leu Ala Phe Leu Thr 120 125

370

Gln Gly Leu Arg Trp Leu Arg Ser Pro Gly Ser Cys Arg Gln Gly Gln 135

Glu Gly Ser Gly Thr Trp Lys Met Arg Pro Leu Ala Gly Ala Pro Val

Pro Lys Arg Gln Lys Cys Asp His Trp Thr Pro Cys Pro Ser Asp Thr

Tyr Ala Tyr Argl Leu Leu Ser Gly Gly Gly Arg Ser Lys Tyr Ala Lys 180

Ile Cys Phe Glu Asp Asn Leu Leu Met Gly Glu Gln Leu Gly Asn Val

Ala Arg Gly Ile Asn Ile Ala Ile Val Asn Tyr Val Thr Gly Asn Val

Thr Ala Thr Arg Cys Phe Asp Met Tyr Glu Gly Asp Asn Ser Gly Pro 230

Met Thr Lys Phe Ile Gln Ser Ala Ala Pro Lys Ser Leu Leu Phe Met 245 250

Val Thr Tyr Asp Asp Gly Ser Thr Arg Leu Asn Asn Asp Ala Lys Asn 260

Ala Ile Glu Ala Leu Gly Ser Lys Glu Ile Arg Asn Met Lys Phe Arg

Ser Ser Trp Val Phe Ile Ala Ala Lys Gly Leu Glu Leu Pro Ser Glu 295

Ile Gln Arg Glu Lys Ile Asn His Ser Asp Ala Lys Asn Asn Arg Tyr 315

Ser Gly Trp Pro Ala Glu Ile Gln Ile Glu Gly Cys Ile Pro Lys Glu 325

Arg Ser

<210> 286 <211> 173 <212> PRT

<213> Homo sapien

PCT/US2004/011104 WO 2004/092338

371

<400> 286

Met Arg Pro Leu Ala Gly Gly Leu Leu Lys Val Val Phe Val Val Phe 10

Ala Ser Leu Cys Ala Trp Tyr Ser Gly Tyr Leu Leu Ala Glu Leu Ile

Pro Asp Ala Pro Leu Ser Ser Ala Ala Tyr Ser Ile Arg Ser Ile Gly

Glu Arg Pro Val Leu Lys Ala Pro Val Pro Lys Arg Gln Lys Cys Asp

His Trp Thr Pro Cys Pro Ser Asp Thr Tyr Ala Tyr Arg Leu Leu Ser

Gly Gly Gly Arg Ser Lys Tyr Ala Lys Ile Cys Phe Glu Asp Asn Leu

Leu Met Gly Glu Gln Leu Gly Asn Val Ala Arg Gly Ile Asn Ile Ala

Ile Val Asn Tyr Val Thr Gly Asn Val Thr Ala Thr Arg Cys Phe Asp 120 115

Met Tyr Glu Gly Gly Lys Lys Ile Phe Ser Val Lys Ile Gln Met Asn 130

Phe Lys Gln Lys Ile Lys Ile Lys Lys His Lys Glu Lys Cys Gln Pro 145 150 155

Phe Leu Phe Cys Leu Leu Glu Lys Arg Gln Gln Leu Ser 170

<210> 287

<211> 133 <212> PRT <213> Homo sapien

<220>

<221> MISC_FEATURE <222> (62)..(62)

<223> x=any amino acid

<400> 287

Met Asn His Thr Val Gln Thr Phe Phe Ser Pro Val Asn Ser Gly Gln

372

15 10

Pro Leu Asn Tyr Glu Met Leu Lys Glu Glu His Glu Val Ala Val Pro

Gly Val Pro His Asn Pro Ala Leu Pro Thr Ser Thr Val Ile His Ile

Arg Ser Glu Thr Ser Tyr Leu Asp His Arg Ala Met Thr Xaa Asn Phe

Cys Arg Phe Lys Tyr Pro His Asn Gln Gly Asn Ile Thr Gly Ala Tyr

Ser Val Lys Ser Arg Asp Arg Lys Met Val Gly Asp Val Thr Gly Ala

Gln Ala Tyr Ala Ser Thr Ala Lys Cys Leu Asn Ile Trp Ala Leu Ile

Leu Gly Ile Leu Met Thr Ile Leu Leu Ile Val Ile Pro Val Leu Ile 120

Phe Gln Ala Tyr Gly 130

<210> 288 <211> 332

<212> PRT

<213> Homo sapien

<400> 288

Met Ala Asn Arg Asp Thr Gly Glu Asn Leu Thr Arg Glu Asn Leu Ser

Ser Pro Ala Leu Leu Cys Ala Cys Leu Leu Pro Pro Leu Thr Met

Thr Thr Ser Ile Arg Gln Phe Thr Ser Ser Ser Ile Lys Gly Ser

Ser Gly Leu Gly Gly Ser Ser Arg Thr Ser Cys Arg Leu Ser Gly

Gly Leu Gly Ala Gly Ser Cys Arg Leu Gly Ser Ala Gly Gly Leu Gly 70

373

Ser Thr Leu Gly Gly Ser Ser Tyr Ser Ser Cys Tyr Ser Phe Gly Ser 85 90 95

Gly Gly Gly Tyr Gly Ser Ser Phe Gly Gly Val Asp Gly Leu Leu Ala 100 105 110

Gly Gly Glu Lys Ala Thr Met Gln Asn Leu Asn Asp Arg Leu Ala Ser 115 120 125

Tyr Leu Asp Lys Val Arg Ala Leu Glu Glu Ala Asn Thr Glu Leu Glu 130 135 140

Val Lys Ile Arg Asp Trp Tyr Gln Arg Gln Ala Pro Gly Pro Ala Arg 145 150 155 160

Asp Tyr Ser Gln Tyr Tyr Arg Thr Ile Glu Glu Leu Gln Asn Lys Ile 165 170 175

Leu Thr Ala Thr Val Asp Asn Ala Asn Ile Leu Leu Gln Ile Asp Asn 180 185 190

Ala Arg Leu Ala Asp Asp Phe Arg Thr Lys Phe Glu Thr Glu Gln
195 200 205

Ala Leu Arg Leu Ser Val Glu Ala Asp Ile Asn Gly Leu Arg Arg Val 210 220

Leu Asp Glu Leu Thr Leu Ala Arg Ala Asp Leu Glu Met Gln Ile Glu 225 230 240

Asn Leu Lys Glu Glu Leu Ala Tyr Leu Lys Lys Asn His Glu Glu Glu 245 250 255

Met Asn Ala Leu Glu Ala Ser Gly Gly Glu Thr Thr Arg Arg Met Leu 260 265 270

Leu Ala Gln Gly Asp Glu Arg Ser Gln Lys Gly Arg Leu Lys Lys Gly 275 280 285

Lys Thr Thr Glu Arg Met Ala Gln Gln Arg Lys Arg Arg Thr Thr Asp 290 295 300

Gly Lys Lys Asp Arg Asn Ala Arg Gly Glu Thr Gln Asn Ser Gly Lys 305 310 315

374

Glu Pro Ser Gly Leu Phe Cys Tyr Leu Glu Gln Leu 325

<210> 289 <211> 262

<212> PRT

<213> Homo sapien

<220>

<221> MISC_FEATURE

<222> (253)..(253) <223> x=any amino acid

<220>

<221> MISC_FEATURE <222> (260)..(260) <223> x=any amino acid

<400> 289

Gln Arg Tyr Arg Arg Lys Phe Asn Thr Arg Glu Ser Leu Leu Ser Ser

Pro Ser Pro Val Cys Leu Pro Pro Ala Ala Ala Thr Met Thr Thr Ser

Ile Arg Gln Phe Thr Ser Ser Ser Ile Lys Gly Ser Ser Gly Leu 35 40

Gly Gly Ser Ser Arg Thr Ser Cys Arg Leu Ser Gly Gly Leu Gly 50 55

Ala Gly Ser Cys Arg Leu Gly Ser Ala Gly Gly Leu Gly Ser Thr Leu 75

Gly Gly Ser Ser Tyr Ser Ser Cys Tyr Ser Phe Gly Ser Gly Gly

Tyr Gly Ser Ser Phe Gly Gly Val Asp Gly Leu Leu Ala Gly Gly Glu 105

Lys Ala Thr Met Gln Asn Leu Asn Asp Arg Leu Ala Ser Tyr Leu Asp 120

Lys Val Arg Ala Leu Glu Glu Ala Asn Thr Glu Leu Glu Val Lys Ile 130

Arg Asp Trp Tyr Gln Arg Gln Ala Pro Gly Pro Ala Arg Asp Tyr Ser 150 155 145

375

Gln Tyr Tyr Arg Thr Ile Glu Glu Leu Gln Asn Lys Ile Leu Thr Ala

Thr Val Asp Asn Ala Asn Ile Leu Leu Gln Ile Asp Asn Ala Arg Leu 180 185

Ala Ala Asp Asp Phe Arg Thr Lys Phe Glu Thr Glu Gln Ala Leu Arg 200 195

Leu Ser Val Glu Ala Asp Ile Asn Gly Leu Arg Arg Val Leu Asp Glu 215 220

Leu Thr Leu Ala Arg Ala Asp Leu Glu Met Gln Ile Glu Lys Pro Gln

Gly Gly Ala Gly Leu Pro Glu Glu Glu Pro Arg Gly Xaa Asp Glu Arg

Pro Gly Gly Xaa Trp Trp 260

<210> 290

<211> 190 <212> PRT <213> Homo sapien

Met Tyr Leu Leu His Asn Ser Gln Glu Met Leu Arg Ser Met Val Leu 5 10

Asn Trp His Leu Leu Gly Leu Ala Glu Tyr Arg Glu Lys Val Glu Thr

Glu Leu Gln Gly Val Cys Asp Thr Val Leu Gly Leu Leu Asp Ser His

Leu Ile Lys Glu Ala Gly Asp Ala Glu Ser Arg Val Phe Tyr Leu Lys

Met Lys Gly Asp Tyr Tyr Arg Tyr Leu Ala Glu Val Ala Thr Gly Asp 70

Asp Lys Lys Arg Ile Ile Asp Ser Ala Arg Ser Ala Tyr Gln Glu Ala

376

Met Asp Ile Ser Lys Lys Glu Met Pro Pro Thr Asn Pro Ile Arg Leu

Gly Leu Ala Leu Asn Phe Ser Val Phe His Tyr Glu Ile Ala Asn Ser 120 115

Pro Glu Glu Ala Ile Ser Leu Ala Lys Thr Thr Phe Asp Glu Ala Met 135

Ala Asp Leu His Thr Leu Ser Glu Asp Ser Tyr Lys Asp Ser Thr Leu 150 155

Ile Met Gln Leu Leu Arg Asp Asn Leu Thr Leu Trp Thr Ala Asp Asn 170

Ala Gly Glu Glu Gly Gly Glu Ala Pro Gln Glu Pro Gln Ser

<210> 291

<211> 174 <212> PRT <213> Homo sapien

<400> 291

Ile Gly Ile Cys Trp Val Trp Pro Glu Tyr Arg Glu Lys Val Glu Thr 5 10

Glu Leu Gln Gly Val Cys Asp Thr Val Leu Gly Leu Leu Asp Ser His 20

Leu Ile Lys Glu Ala Gly Asp Ala Glu Ser Arg Val Phe Tyr Leu Lys

Met Lys Gly Asp Tyr Tyr Arg Tyr Leu Ala Glu Val Ala Thr Gly Asp

Asp Lys Lys Arg Ile Ile Asp Ser Ala Arg Ser Ala Tyr Gln Glu Ala

Met Asp Ile Ser Lys Lys Glu Met Pro Pro Thr Asn Pro Ile Arg Leu 90

Gly Leu Ala Leu Asn Phe Ser Val Phe His Tyr Glu Ile Ala Asn Ser

Pro Glu Glu Ala Ile Ser Leu Ala Lys Thr Thr Phe Asp Glu Ala Met 120 115

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Ala Asp Leu His Thr Leu Ser Glu Asp Ser Tyr Lys Asp Ser Thr Leu 135 140

Ile Met Gln Leu Leu Arg Asp Asn Leu Thr Leu Trp Thr Ala Asp Asn 150 155

Ala Gly Glu Glu Gly Gly Glu Ala Pro Gln Glu Pro Gln Ser 165

<210> 292 <211> 241

<212> PRT

<213> Homo sapien

<400> 292

Arg Leu Pro Leu Leu His His Pro Cys Leu Thr Ile Ile Phe Pro Pro

Lys Ala Val Thr Ser Ser Thr Pro Ile Pro Arg Ala Leu Gly Thr Gln 25

Pro Leu Ala Lys Ser Pro Gln Ala Gly Ser Gly Leu Asn Pro Ala Val 35 40

Ser Thr Pro Arg Lys His Thr Asp Val Phe Asn Trp Lys Val Arg Ala 50

Gly Ser Asp Lys Leu Gly Ser Phe Pro Ser Leu Ala Val Ala Lys Ile 70

Ile Ile Ile Glu Phe Asn Pro Met Tyr Pro Lys Asp Asn Asp Ile Ala 90

Leu Met Lys Leu Gln Phe Pro Leu Thr Phe Ser Gly Thr Val Arg Pro 105

Ile Cys Leu Pro Phe Phe Asp Glu Glu Leu Thr Pro Ala Thr Pro Leu 115 125

Trp Ile Ile Gly Trp Gly Phe Thr Lys Gln Asn Gly Gly Lys Met Ser 130 135

Asp Ile Leu Leu Gln Ala Ser Val Gln Val Ile Asp Ser Thr Arg Cys 145 150 155

378

Asn Ala Asp Asp Ala Tyr Gln Gly Glu Val Thr Glu Lys Met Met Cys

Ala Gly Ile Pro Glu Gly Gly Val Asp Thr Cys Gln Gly Asp Ser Gly 185

Gly Pro Leu Met Tyr Gln Ser Asp Gln Trp His Val Val Gly Ile Val 200

Ser Trp Gly Tyr Gly Cys Gly Gly Pro Ser Thr Pro Gly Val Tyr Thr

Lys Val Ser Ala Tyr Leu Asn Trp Ile Tyr Asn Val Trp Lys Ala Glu 235

Leu

<210> 293

<211> 222

<212> PRT <213> Homo sapien

<400> 293

His Pro Ala Pro Arg Ser Leu Gly Pro Trp Gly Pro Ser Leu Trp Gln 5 10

Ser Leu Leu Arg Leu Gly Ser Gly Leu Asn Pro Ala Val Ser Thr Pro 25

Arg Lys His Thr Asp Val Phe Asn Trp Lys Val Arg Ala Gly Ser Asp

Lys Leu Gly Ser Phe Pro Ser Leu Ala Val Ala Lys Ile Ile Ile Ile

Glu Phe Asn Pro Met Tyr Pro Lys Asp Asn Asp Ile Ala Leu Met Lys 75

Leu Gln Phe Pro Leu Thr Phe Ser Gly Thr Val Arg Pro Ile Cys Leu

Pro Phe Phe Asp Glu Glu Leu Thr Pro Ala Thr Pro Leu Trp Ile Ile

Gly Trp Gly Phe Thr Lys Gln Asn Gly Gly Lys Met Ser Asp Ile Leu 120 115

379

Leu Gln Ala Ser Val Gln Val Ile Asp Ser Thr Arg Cys Asn Ala Asp 130 135 140

Asp Ala Tyr Gln Gly Glu Val Thr Glu Lys Met Met Cys Ala Gly Ile

Pro Glu Gly Gly Val Asp Thr Cys Gln Gly Asp Ser Gly Gly Pro Leu

Met Tyr Gln Ser Asp Gln Trp His Val Val Gly Ile Val Ser Trp Gly 185

Tyr Gly Cys Gly Gly Pro Ser Thr Pro Gly Val Tyr Thr Lys Val Ser 195 200

Ala Tyr Leu Asn Trp Ile Tyr Asn Val Trp Lys Ala Glu Leu 215 210

<210> 294

<211> 218

<212> PRT <213> Homo sapien

<220>

<221> MISC_FEATURE

<222> (210)..(210) <223> x=any amino acid

<400> 294

Met Ala Val Ala Ser Ala Ala Ala Ala Leu Val Val Ala Leu Gly

Glu Asp Met Val Val Ala Leu Val Leu Ala Ser Val Val Ala Trp Val

Leu Ala Leu Gly Val Asp Gly Leu Leu Ala Gly Gly Glu Lys Ala Thr 40

Met Gln Asn Leu Asn Asp Arg Leu Ala Ser Tyr Leu Asp Lys Val Arg 50

Ala Leu Glu Glu Ala Asn Thr Glu Leu Glu Val Lys Ile Arg Asp Trp

Tyr Gln Arg Gln Ala Pro Gly Pro Ala Arg Asp Tyr Ser Gln Tyr Tyr 90

380

Arg Thr Ile Glu Glu Leu Gln Asn Lys Ile Leu Thr Ala Thr Val Asp

Asn Ala Asn Ile Leu Leu Gln Ile Asp Asn Ala Arg Leu Ala Ala Asp 120

Asp Phe Arg Thr Lys Phe Glu Thr Glu Gln Ala Leu Arg Leu Ser Val

Glu Ala Asp Ile Asn Gly Leu Arg Arg Val Leu Asp Glu Leu Thr Leu

Ala Arg Ala Asp Leu Glu Met Gln Ile Glu Asn Leu Lys Gly Gly Ala 165 170

Gly Leu Thr Glu Glu Glu Pro Arg Gly Gly Asp Glu Arg Pro Gly Lys 180 185 190

Gln Val Gly Gly Glu Ile Asn Val Glu Lys Asp Ala Ala Pro Gly Leu 200 205

Asp Xaa Ser Arg Ile Leu Asn Glu Met Arg

<210> 295

<211> 303 <212> PRT <213> Homo sapien

<220>

<221> MISC_FEATURE
<222> (296)..(296)
<223> x=any amino acid

<400> 295

Ala Pro Phe Leu Leu Ser Ala Asn Cys Ser Leu Ala His Leu Pro Pro

Trp His His Asp His Leu Gln Pro Pro Val His Leu Leu Gln Leu His

Glu Gly Leu Leu Arg His Arg Arg His Arg Gly Arg Leu Gln Pro

His Leu Leu Arg Pro Gly Arg Arg Val Leu Pro Cys Pro Gln His Leu 50

Arg Gly Arg Pro Val Cys His Pro Leu Ala Ser Pro Leu Gly Glu Pro 65 70 75 80

Ala Gly Trp Gly Ala Ala Met Ala Val Ala Ser Ala Ala Ala Ala Ala Ala 85 90 95

Leu Val Val Ala Leu Gly Glu Asp Met Val Val Ala Leu Val Leu Ala 100 105 110

Ser Val Val Ala Trp Val Leu Ala Leu Gly Val Asp Gly Leu Leu Ala 115 120 125

Gly Glu Lys Ala Thr Met Gln Asn Leu Asn Asp Arg Leu Ala Ser 130 135 140

Tyr Leu Asp Lys Val Arg Ala Leu Glu Glu Ala Asn Thr Glu Leu Glu 145 150 155 160

Val Lys Ile Arg Asp Trp Tyr Gln Arg Gln Ala Pro Gly Pro Ala Arg 165 170 175

Asp Tyr Ser Gln Tyr Tyr Arg Thr Ile Glu Glu Leu Gln Asn Lys Ile 180 185 190

Leu Thr Ala Thr Val Asp Asn Ala Asn Ile Leu Leu Gln Ile Asp Asn 195 200 205

Ala Arg Leu Ala Ala Asp Asp Phe Arg Thr Lys Phe Glu Thr Glu Gln 210 215 220

Ala Leu Arg Leu Ser Val Glu Ala Asp Ile Asn Gly Leu Arg Arg Val 225 230 235

Leu Asp Glu Leu Thr Leu Ala Arg Ala Asp Leu Glu Met Gln Ile Glu 245 250 250

Asn Leu Lys Gly Gly Ala Gly Leu Thr Glu Glu Glu Pro Arg Gly Gly 260 265 270

Asp Glu Arg Pro Gly Ser Arg Trp Val Val Arg Ser Met Trp Arg Arg 275 280 285

Thr Leu Pro Gln Ala Trp Thr Xaa Ala Ala Ser Ser Thr Arg Cys 290 295 300

382

<210> 296

<211> 103 <212> PRT <213> Homo sapien

<400> 296

Ala Asn Thr Pro His Ser Ser Thr Leu Leu Asn Ala Trp Gly Ser Ala

His Cys Pro Ser Gln Arg Ala Thr Leu Val Phe Lys Ala His Ile Ser 25

Leu Gly Tyr Asp Asn Thr Glu Asn Leu Ala Thr Thr Thr Pro Gln Gly

Trp Trp Ser Leu Thr Gly Pro Pro Leu Ala Ser Lys Gly Gly Lys Glu

Thr Pro Gly Ala Asn Gln Pro His Ala Gln Ser Thr Gln Arg Gly Glu

Glu Glu Arg Arg Ala Pro His Cys Leu Gly Glu Ser His Leu His Thr

Thr Leu Ser Pro Pro Pro His 100

<210> 297

<211> 91

<212> PRT

<213> Homo sapien

<400> 297

Arg Asp Pro Trp Ser Gln Pro Ala Pro Arg Thr Glu His Thr Lys Arg

Lys Glu Glu Lys Thr Pro His Cys Trp Gly Gly Pro Cys His His Thr

Gln Ser Pro Thr Thr Leu Asn Leu Pro Ser Ser Gln Leu Pro Cys Arg

Pro Leu Glu Glu Gly Arg Gly Leu Gly Ser Arg Thr Leu Ser Cys Thr

Ile Asn Lys Val Pro Cys Ala Gln Pro Lys Lys Lys Lys Lys Gly

383

Gly Val Met Ser Gly Gly Gly Asn Lys Gly Thr 85

<210> 298

<211> 256 <212> PRT <213> Homo sapien

<400> 298

Met Gly Val Asn His Glu Lys Tyr Asp Asn Ser Leu Lys Ile Ile Ser

Asn Ala Ser Cys Thr Thr Asn Cys Leu Ala Pro Leu Ala Lys Val Ile 25

His Asp Asn Phe Gly Ile Val Glu Gly Leu Met Thr Thr Val His Ala

Ile Thr Ala Thr Gln Lys Thr Val Asp Gly Pro Ser Gly Lys Leu Trp

Arg Asp Gly Arg Gly Ala Leu Gln Asn Ile Ile Pro Ala Ser Thr Gly 70

Ala Ala Lys Ala Val Gly Lys Val Ile Pro Glu Leu Asn Gly Lys Leu

Thr Gly Met Ala Phe Arg Val Pro Thr Ala Asn Val Ser Val Val Asp

Leu Thr Cys Arg Leu Glu Lys Pro Ala Lys Tyr Asp Asp Ile Lys Lys 120

Val Val Lys Gln Ala Ser Glu Gly Pro Leu Lys Gly Ile Leu Gly Tyr 135

Thr Glu His Gln Val Val Ser Ser Asp Phe Asn Ser Asp Thr His Ser 150 155

Ser Thr Phe Asp Ala Gly Ala Gly Ile Ala Leu Asn Asp His Phe Val 165

Lys Leu Ile Ser Trp Tyr Asp Asn Glu Phe Gly Tyr Ser Asn Arg Val 180

384

Val Asp Leu Met Ala Thr Trp Leu Lys Ser Arg Pro Trp Thr Gln Pro 195 200

Glu Ser Gln Arg Glu Arg Asp Leu Thr Val Gly Val Leu His Ile Arg 215 220 210

Pro Thr Lys Asp Ser Pro Pro Gly Arg Asn Leu Lys Gly Glu Gly Pro 225 230 235

Gly Gly Pro Lys Pro Gly Pro Lys Lys Gly Gly Ile Arg His Pro Pro 245 250

<210> 299

<211> 351 <212> PRT <213> Homo sapien

<220>

<221> MISC_FEATURE <222> (304)..(304) <223> x=any amino acid

<220>

<221> MISC_FEATURE

<222> (306)..(309) <223> x=any amino acid

<220>

<221> MISC FEATURE

<222> (311)..(311) <223> x=any amino acid

<220>

<221> MISC_FEATURE <222> (314)..(314) <223> x=any amino acid

<220>

<221> MISC_FEATURE
<222> (317)..(318)
<223> x=any amino acid

<220>

<221> MISC_FEATURE

<222> (324)..(324)

<223> x=any amino acid

<400> 299

Leu Arg Leu Arg Tyr Glu Ala Gly Val Gln Ala Glu Asn Gly Lys Leu

385

Val Ile Asn Gly Asn Pro Ile Thr Ile Phe Gln Glu Arg Asp Pro Ser 20 25 30

Lys Ile Lys Trp Gly Asp Ala Gly Ala Glu Tyr Val Val Glu Ser Thr  $_{3}$ S  $_{40}$ 

Gly Val Phe Thr Thr Met Glu Lys Ala Gly Ala His Leu Gln Gly Gly 50 55 60

Ala Lys Arg Val Ile Ile Ser Ala Pro Ser Ala Asp Ala Pro Met Phe 65 70 75 80

Val Met Gly Val Asn His Glu Lys Tyr Asp Asn Ser Leu Lys Ile Ile 85 90 95

Ser Asn Ala Ser Cys Thr Thr Asn Cys Leu Ala Pro Leu Ala Lys Val

Ile His Asp Asn Phe Gly Ile Val Glu Gly Leu Met Thr Thr Val His
115 120 125

Ala Ile Thr Ala Thr Gln Lys Thr Val Asp Gly Pro Ser Gly Lys Leu 130 135 140

Trp Arg Asp Gly Arg Gly Ala Leu Gln Asn Ile Ile Pro Ala Ser Thr
145 150 155 160

Gly Ala Ala Lys Ala Val Gly Lys Val Ile Pro Glu Leu Asn Gly Lys 165 170 175

Leu Thr Gly Met Ala Phe Arg Val Pro Thr Ala Asn Val Ser Val Val
180 185 190

Asp Leu Thr Cys Arg Leu Glu Lys Pro Ala Lys Tyr Asp Asp Ile Lys 195 200 205

Lys Val Val Lys Gln Ala Ser Glu Gly Pro Leu Lys Gly Ile Leu Gly 210 215 220

Tyr Thr Glu His Gln Val Val Ser Ser Asp Phe Asn Ser Asp Thr His 225 230 235 240

Ser Ser Thr Phe Asp Ala Gly Ala Gly Ile Ala Leu Asn Asp His Phe 245 250 255

386

Val Lys Leu Ile Ser Trp Tyr Asp Asn Glu Phe Gly Tyr Ser Asn Arg 265

Val Val Asp Leu Met Ala Thr Trp Leu Lys Ser Arg Pro Trp Thr Gln 280

Pro Glu Ser Gln Arg Glu Arg Asp Ser Leu Trp Glu Pro Ala Ile Xaa

Pro Xaa Xaa Xaa Pro Xaa Ala Asp Xaa Lys Gly Xaa Xaa Pro Val 310 315

Pro Lys Pro Xaa Gln Lys Arg Gly Glu Ser Gly Thr Pro Leu Lys Pro 325

Arg Glu Asn Gly Ala Gly Lys Gly Gly Leu Trp Thr His Tyr Gly 345

<210> 300

<211> 432 <212> PRT

<213> Homo sapien

<400> 300

Met Thr Thr Thr Phe Leu Gln Thr Ser Ser Ser Thr Phe Gly Gly

Ser Thr Arg Gly Gly Ser Leu Leu Ala Gly Gly Gly Phe Gly Gly

Gly Ser Leu Ser Gly Gly Gly Ser Arg Ser Ile Ser Ala Ser Ser 35 40

Ala Arg Phe Val Ser Ser Gly Ser Gly Gly Gly Tyr Gly Gly Met

Arg Val Cys Gly Phe Gly Gly Gly Ala Gly Ser Val Phe Gly Gly Gly

Phe Gly Gly Val Gly Gly Gly Phe Gly Gly Phe Gly Gly Gly

Asp Gly Gly Leu Leu Ser Gly Asn Glu Lys Ile Thr Met Gln Asn Leu

Asn Asp Arg Leu Ala Ser Tyr Leu Asp Lys Val Arg Ala Leu Glu Glu

387

120 125 115 Ala Asn Ala Asp Leu Glu Val Lys Ile His Asp Trp Tyr Gln Lys Gln 135 140 Thr Pro Ala Ser Pro Glu Cys Asp Tyr Ser Gln Tyr Phe Lys Thr Ile 155 Glu Glu Leu Arg Asp Lys Ile Met Ala Thr Thr Ile Asp Asn Ser Arg 165 Val Ile Leu Glu Ile Asp Asn Ala Arg Leu Ala Ala Asp Asp Phe Arg 180 Leu Lys Cys Ala Pro Pro Ser Leu Ser Ser Ser Cys Met Pro Thr Leu 200 Leu Gly Leu Leu Leu Ala Leu Thr Gln Ala Ala Lys Thr Pro Pro Thr Ser Phe Phe Gly Leu Pro Leu Leu Arg Tyr Glu Asn Glu Leu Ala Leu 230 Arg Gln Gly Val Glu Ala Asp Ile Asn Gly Leu Arg Arg Val Leu Asp 245 250 Glu Leu Thr Leu Ala Arg Thr Asp Leu Glu Met Gln Ile Glu Gly Leu 260 265 270 Asn Glu Glu Leu Ala Tyr Leu Lys Lys Asn His Glu Glu Glu Met Lys 280 Glu Phe Ser Ser Gln Leu Ala Gly Gln Val Asn Val Glu Met Asp Ala Ala Pro Gly Val Asp Leu Thr Arg Val Leu Ala Glu Met Arg Glu Gln 310 315 Tyr Glu Ala Met Ala Glu Lys Asn Arg Arg Asp Val Glu Ala Trp Phe Phe Ser Lys Thr Glu Glu Leu Asn Lys Glu Val Ala Ser Asn Thr Glu

Met Ile Gln Thr Ser Lys Thr Glu Ile Thr Asp Leu Arg Arg Thr Met

360

355

365

388

Gln Glu Leu Glu Ile Glu Leu Gln Ser Gln Leu Ser Met Lys Ala Gly
370 380

Leu Glu Asn Ser Leu Ala Glu Thr Glu Cys Arg Tyr Ala Thr Gln Leu 385 390 395 400

Gln Gln Ile Gln Gly Leu Ile Gly Gly Leu Glu Ala Gln Leu Ser Glu 405 410 415

Leu Arg Cys Glu Met Glu Ala Gln Asn Gln Glu Val Gln Asp Ala Ala
420 425 430

<210> 301

<211> 360

<212> PRT

<213> Homo sapien

<400> 301

Arg Ser Met Thr Gly Thr Arg Ser Arg Pro Gln Pro Ala Gln Asn Ala 1 5 10 15

Thr Thr Ala Asn Thr Ser Arg Pro Leu Lys Ser Ser Gly Thr Arg Ser 20 25 30

Trp Pro Pro Pro Ser Thr Thr Pro Gly Ser Ser Trp Arg Ser Thr Met 35 40 45

Pro Gly Trp Leu Arg Thr Thr Ser Gly Ser Ser Ala Leu Pro Arg Leu
50 60

Ser Pro Leu Pro Ala Leu Pro Thr Leu Leu Gly Leu Leu Leu Ala Leu 65 70 75 80

Thr Gln Ala Ala Lys Thr Pro Pro Thr Ser Phe Phe Gly Leu Pro Leu 85 90 95

Leu Arg Tyr Glu Asn Glu Leu Ala Leu Arg Gln Gly Val Glu Ala Asp 100 105 110

Ile Asn Gly Leu Arg Arg Val Leu Asp Glu Leu Thr Leu Ala Arg Thr 115 120 125

Asp Leu Glu Met Gln Ile Glu Gly Leu Asn Glu Glu Leu Ala Tyr Leu 130 140

389

Lys Lys Asn His Glu Glu Met Lys Glu Phe Ser Ser Gln Leu Ala 145 150 155 160

Gly Gln Val Asn Val Glu Met Asp Ala Ala Pro Gly Val Asp Leu Thr 165 170 175

Arg Val Leu Ala Glu Met Arg Glu Gln Tyr Glu Ala Met Ala Glu Lys 180 185 190

Asn Arg Arg Asp Val Glu Ala Trp Phe Phe Ser Lys Thr Glu Glu Leu 195 200 205

Asn Lys Glu Val Ala Ser Asn Thr Glu Met Ile Gln Thr Ser Lys Thr 210 215 220

Glu Ile Thr Asp Leu Arg Arg Thr Met Gln Glu Leu Glu Ile Glu Leu 225 230 235 240

Gln Ser Gln Leu Ser Met Lys Ala Gly Leu Glu Asn Ser Leu Ala Glu 245 250 255

Thr Glu Cys Arg Tyr Ala Thr Gln Leu Gln Gln Ile Gln Gly Leu Ile 260 265 270

Gly Gly Leu Glu Ala Gln Leu Ser Glu Leu Arg Cys Glu Met Glu Ala 275 280 285

Gln Asn Gln Glu Tyr Lys Met Leu Leu Asp Ile Lys Thr Arg Leu Glu 290 295 300

Gln Glu Ile Ala Thr Tyr Arg Ser Leu Leu Glu Gly Gln Asp Ala Lys 305 310 315

Met Ala Gly Ile Gly Ile Arg Glu Ala Ser Ser Gly Gly Gly Ser 325 330 335

Ser Ser Asn Phe His Ile Asn Val Glu Glu Ser Val Asp Gly Gln Val

Val Ser Ser His Lys Arg Glu Ile 355 360

<210> 302

<211> 393

<212> PRT

<213> Homo sapien

<400> 302

Met Thr Thr Thr Phe Leu Gln Thr Ser Ser Ser Thr Phe Gly Gly Gly 15

Ser Thr Arg Gly Gly Ser Leu Leu Ala Gly Gly Gly Gly Phe Gly Gly 20 25 30

Gly Ser Leu Ser Gly Gly Gly Ser Arg Ser Ile Ser Ala Ser Ser 35 40 45

Ala Arg Phe Val Ser Ser Gly Ser Gly Gly Gly Tyr Gly Gly Met 50 55 60

Arg Val Cys Gly Phe Gly Gly Gly Ala Gly Ser Val Phe Gly Gly Gly 65 70 75 80

Phe Gly Gly Gly Val Gly Gly Gly Phe Gly Gly Gly Phe Gly Gly Gly 85 90 95

Asp Gly Gly Leu Leu Ser Gly Asn Glu Lys Ile Thr Met Gln Asn Leu 100 105 110

Asn Asp Arg Leu Ala Ser Tyr Leu Asp Lys Val Arg Ala Leu Glu Glu 115 120 125

Ala Asn Ala Asp Leu Glu Val Lys Ile His Asp Trp Tyr Gln Lys Gln 130 135 140

Thr Pro Ala Ser Pro Glu Cys Asp Tyr Ser Gln Tyr Phe Lys Thr Ile 145 150 155 160

Glu Glu Leu Arg Asp Lys Ile Met Ala Thr Thr Ile Asp Asn Ser Arg 165 170 175

Val Ile Leu Glu Ile Asp Asn Ala Arg Leu Ala Ala Asp Asp Phe Arg

Leu Lys Tyr Glu Asn Glu Leu Ala Leu Arg Gln Gly Val Glu Ala Asp

Ile Asn Gly Leu Arg Arg Val Leu Asp Glu Leu Thr Leu Ala Arg Thr 210 215 220

Asp Leu Glu Met Gln Ile Glu Gly Leu Asn Glu Glu Leu Ala Tyr Leu 230 235 240

391

Lys Lys Asn His Glu Glu Glu Met Lys Glu Phe Ser Ser Gln Leu Ala

Gly Gln Val Asn Val Glu Met Asp Ala Ala Pro Gly Val Asp Leu Thr 265

Arg Val Leu Ala Glu Met Arg Glu Gln Tyr Glu Ala Met Ala Glu Lys

Asn Arg Arg Asp Val Glu Ala Trp Phe Phe Ser Lys Thr Glu Glu Leu 295 290

Asn Lys Glu Val Ala Ser Asn Thr Glu Met Ile Gln Thr Ser Lys Thr 315 305 310

Glu Ile Thr Asp Leu Arg Arg Thr Met Gln Glu Leu Glu Ile Glu Leu 330

Gln Ser Gln Leu Ser Met Lys Ala Gly Leu Glu Asn Ser Leu Ala Glu

Thr Glu Cys Arg Tyr Ala Thr Gln Leu Gln Gln Ile Gln Gly Leu Ile 360

Gly Gly Leu Glu Ala Gln Leu Ser Glu Leu Arg Cys Glu Met Glu Ala 380 370 375

Gln Asn Gln Glu Val Gln Asp Ala Ala

<210> 303

<211> 499

<212> PRT <213> Homo sapien

<400> 303

Glu Leu Thr Gly Ser Ser Tyr Leu Ala Met Thr Thr Thr Phe Leu Gln

Thr Ser Ser Ser Thr Phe Gly Gly Ser Thr Arg Gly Gly Ser Leu

Leu Ala Gly Gly Gly Gly Phe Gly Gly Gly Ser Leu Ser Gly Gly 40

Gly Ser Arg Ser Ile Ser Ala Ser Ser Ala Arg Phe Val Ser Ser Gly

392

50 55 60

Ser Gly Gly Gly Tyr Gly Gly Gly Met Arg Val Cys Gly Phe Gly Gly

Gly Ala Gly Ser Val Phe Gly Gly Gly Gly Gly Gly Gly Gly 95 90 95

Gly Phe Gly Gly Phe Gly Gly Gly Asp Gly Gly Leu Leu Ser Gly 100 105 110

Asn Glu Lys Ile Thr Met Gln Asn Leu Asn Asp Arg Leu Ala Ser Tyr 115 120 125

Leu Asp Lys Val Arg Ala Leu Glu Glu Ala Asn Ala Asp Leu Glu Val 130 135 140

Lys Ile His Asp Trp Tyr Gln Lys Gln Thr Pro Ala Ser Pro Glu Cys 145 150 155 160

Asp Tyr Ser Gln Tyr Phe Lys Thr Ile Glu Glu Leu Arg Asp Lys Ile 165 170 175

Met Ala Thr Thr Ile Asp Asn Ser Arg Val Ile Leu Glu Ile Asp Asn 180 185 190

Ala Arg Leu Ala Ala Asp Asp Phe Arg Leu Lys Tyr Glu Asn Glu Leu 195 200 205

Ala Leu Arg Gln Gly Val Glu Ala Asp Ile Asn Gly Leu Arg Arg Val 210 215 220

Leu Asp Glu Leu Thr Leu Ala Arg Thr Asp Leu Glu Met Gln Ile Glu 225 235 240

Gly Leu Asn Glu Glu Leu Ala Tyr Leu Lys Lys Asn His Glu Glu Glu 245 250 255

Met Lys Glu Phe Ser Ser Gln Leu Ala Gly Gln Val Asn Val Glu Met 260 265 270

Asp Ala Ala Pro Gly Val Asp Leu Thr Arg Val Leu Ala Glu Met Arg 275 280 285

Glu Gln Tyr Glu Ala Met Ala Glu Lys Asn Arg Arg Asp Val Glu Ala 290 295 300

393

Trp Phe Phe Ser Lys Thr Glu Glu Leu Asn Lys Glu Val Ala Ser Asn 305 310 315 320

Thr Glu Met Ile Gln Thr Ser Lys Thr Glu Ile Thr Asp Leu Arg Arg 325 330 335

Thr Met Gln Glu Leu Glu Ile Glu Leu Gln Ser Gln Leu Ser Met Lys 340 345 350

Ala Gly Leu Glu Asn Ser Leu Ala Glu Thr Glu Cys Arg Tyr Ala Thr 355 360 365

Gln Leu Gln Gln Ile Gln Gly Leu Ile Gly Gly Leu Glu Ala Gln Leu 370 375 380

Ser Glu Leu Arg Cys Glu Met Glu Ala Gln Asn Gln Glu Tyr Lys Met 385 390 395 400

Leu Leu Asp Ile Lys Thr Arg Leu Glu Glu Glu Ile Ala Thr Tyr Arg 405 410 415

Ser Leu Leu Glu Gly Gln Asp Ala Lys Met Ala Gly Ile Gly Ile Arg 420 425 430

Glu Asp Val Pro Cys His Ser Pro Leu Ser Ser Gly Gln Val Glu Asp 435 440 445

Trp Pro Glu Gly Leu His Met Gln Thr Pro Val Pro Ala Phe Arg Glu 450 455 460

Leu Lys Arg Val Pro Arg Ser Phe Ile Ser Gly Leu Cys Met Arg Ser 465 470 475 480

Ile Pro Pro Leu Pro Leu Pro Thr Phe Phe Gly Ala Arg Arg Cys Ser 485 490 495

Cys Ile Val

<210> 304

<211> 458

<212> PRT

<213> Homo sapien

<400> 304

394

Glu Leu Thr Gly Ser Ser Tyr Leu Ala Met Thr Thr Thr Phe Leu Gln 1 5 10 15

Thr Ser Ser Ser Thr Phe Gly Gly Ser Thr Arg Gly Gly Ser Leu 20 25 30

Leu Ala Gly Gly Gly Phe Gly Gly Gly Ser Leu Ser Gly Gly Gly 35 40 45

Gly Ser Arg Ser Ile Ser Ala Ser Ser Ala Arg Phe Val Ser Ser Gly 50 55 60

Ser Gly Gly Gly Tyr Gly Gly Gly Met Arg Val Cys Gly Phe Gly Gly 65 70 75 80

Gly Ala Gly Ser Val Phe Gly Gly Gly Phe Gly Gly Gly Gly Gly 85 90 95

Gly Phe Gly Gly Phe Gly Gly Gly Asp Gly Gly Leu Leu Ser Gly 100 105 110

Asn Glu Lys Ile Thr Met Gln Asn Leu Asn Asp Arg Leu Ala Ser Tyr 115 120 125

Leu Asp Lys Val Arg Ala Leu Glu Glu Ala Asn Ala Asp Leu Glu Val 130 135 140

Lys Ile His Asp Trp Tyr Gln Lys Gln Thr Pro Ala Ser Pro Glu Cys 145 150 155

Asp Tyr Ser Gln Tyr Phe Lys Thr Ile Glu Glu Leu Arg Asp Lys Ile 165 170 175

Met Ala Thr Thr Ile Asp Asn Ser Arg Val Ile Leu Glu Ile Asp Asn 180 185 190

Ala Arg Leu Ala Ala Asp Asp Phe Arg Leu Lys Tyr Glu Asn Glu Leu 195 200 205

Ala Leu Arg Gln Gly Val Glu Ala Asp Ile Asn Gly Leu Arg Arg Val

Leu Asp Glu Leu Thr Leu Ala Arg Thr Asp Leu Glu Met Gln Ile Glu 225 235 240

Gly Leu Asn Glu Glu Leu Ala Tyr Leu Lys Lys Asn His Glu Glu Glu

395

245 250 255

Met Lys Glu Phe Ser Ser Gln Leu Ala Gly Gln Val Asn Val Glu Met 265

Asp Ala Ala Pro Gly Val Asp Leu Thr Arg Val Leu Ala Glu Met Arg

Glu Gln Tyr Glu Ala Met Ala Glu Lys Asn Arg Arg Asp Val Glu Ala 295

Trp Phe Phe Ser Lys Thr Glu Glu Leu Asn Lys Glu Val Ala Ser Asn 305 315

Thr Glu Met Ile Gln Thr Ser Lys Thr Glu Ile Thr Asp Leu Arg Arg

Thr Met Gln Glu Leu Glu Ile Glu Leu Gln Ser Gln Leu Ser Met Lys 340 345

Ala Gly Leu Glu Asn Ser Leu Ala Glu Thr Glu Cys Arg Tyr Ala Thr 360

Gln Leu Gln Gln Ile Gln Gly Leu Ile Gly Gly Leu Glu Ala Gln Leu 370 375

Ser Glu Leu Arg Cys Glu Met Glu Ala Gln Asn Gln Glu Tyr Lys Met 385

Leu Leu Asp Ile Lys Thr Arg Leu Glu Glu Glu Ile Ala Thr Tyr Arg

Ser Leu Leu Glu Gly Gln Asp Ala Lys Met Ala Gly Ile Gly Ile Arg 425

Glu Gly Leu Cys Met Arg Ser Ile Pro Pro Leu Pro Leu Pro Thr Phe

Phe Gly Ala Arg Arg Cys Ser Cys Ile Val 450 455

<210> 305 <211> 281

<212> PRT

<213> Homo sapien

<400> 305

396

Met Thr Thr Phe Leu Gln Thr Ser Ser Ser Thr Phe Gly Gly 1 5 10 15

Ser Thr Arg Gly Gly Ser Leu Leu Ala Gly Gly Gly Phe Gly Gly 20 25 30

Gly Ser Leu Ser Gly Gly Gly Ser Arg Ser Ile Ser Ala Ser Ser 35 40 45

Ala Arg Phe Val Ser Ser Gly Ser Gly Gly Gly Tyr Gly Gly Met 50 55 60

Arg Val Cys Gly Phe Gly Gly Gly Ala Gly Ser Val Phe Gly Gly Gly 65 70 75 80

Phe Gly Gly Gly Gly Gly Gly Phe Gly Gly Gly Gly Gly Gly 95

Asp Gly Gly Leu Leu Ser Gly Asn Glu Lys Ile Thr Met Gln Asn Leu 100 105 110

Asn Asp Arg Leu Ala Ser Tyr Leu Asp Lys Val Arg Ala Leu Glu Glu 115 120 125

Ala Asn Ala Asp Leu Glu Val Lys Ile His Asp Trp Tyr Gln Lys Gln 130 135 140

Thr Pro Ala Ser Pro Glu Cys Asp Tyr Ser Gln Tyr Phe Lys Thr Ile 145 150 155 160

Glu Glu Leu Arg Asp Lys Ile Met Ala Thr Thr Ile Asp Asn Ser Arg 165 170 175

Val Ile Leu Glu Ile Asp Asn Ala Arg Leu Ala Ala Asp Asp Phe Arg 180 185 190

Leu Lys Tyr Glu Asn Glu Leu Ala Leu Arg Gln Gly Val Glu Ala Asp 195 200 205

Ile Asn Gly Leu Arg Arg Val Leu Asp Glu Leu Thr Leu Ala Arg Thr 210 215 220

Asp Leu Glu Met Gln Ile Glu Gly Glu Gly Leu His Met Gln Thr Pro 225 230 235

397

Val Pro Ala Phe Arg Glu Leu Lys Arg Val Pro Arg Ser Phe Ile Ser 245 250

Gly Leu Cys Met Arg Ser Ile Pro Pro Leu Pro Leu Pro Thr Phe Phe 265 260

Gly Ala Arg Arg Cys Ser Cys Ile Val

<210> 306 <211> 49 <212> PRT

<213> Homo sapien

<400> 306

Gly Arg Leu Leu Leu Asn Ser Arg Pro Arg Arg Gln Ile Cys Leu

His His Leu Leu Pro Glu Glu Leu Gln Glu Leu Arg Thr Cys Cys 25

Lys Ser Leu Pro Ser Lys Cys Ser Asn Pro Ala His Gly Asp Cys Leu 35 40

Phe

<210> 307 <211> 98 <212> PRT

<213> Homo sapien

Ala Val Ala Gln Ala Met Phe Tyr Pro Phe Leu Glu Ser Ser Leu Asp

Gln Ala Asn Cys Arg Thr Thr Phe Phe Gly Ser Gln Glu Ser Pro Ile

Pro Ser Pro Trp Ser Pro Val Pro Gln Phe Tyr Ile Leu Leu Gln Ile 35 40

Ser Leu Gln Val Ser His Ser Met Ala Pro Ala Asp Thr Arg Thr Gln 55 .

Ser Phe Pro Lys Ser Lys Ser Ser Lys Gln Asn Pro His Pro Asn Pro 70 75

398

Lys Phe Cys Phe Gly Ser Asn Tyr Leu Gln Asn Val Phe Asn Lys Met 85 90 95

Leu Leu

<210> 308

<211> 226

<212> PRT

<213> Homo sapien

<400> 308

Met Cys Arg Ala Thr Asp Pro Arg Cys Pro Pro Cys Ser Ser Asp His 1 10 15

Gly Gln His Gly Val Met Gly Val His Thr Gly Ala Asp Thr Arg Gly 20 25 30

Gln Tyr Leu Thr Tyr Leu Leu Tyr Arg Trp Glu Gln Gly Gly Ser Gly
35 40 45

Gly His Ser Gln Asn Tyr Thr Ala Phe Asn Arg Trp Gln Asn Trp Gly 50 55 60

Ser Asp Pro Asp Leu Gly Ser Ser His Ser Trp Cys Asp Cys Gly Ser 65 70 75 80

Ser Phe Pro His Leu Gly Leu Ala Ile Ser Leu Ser Glu Trp Thr Trp 85 90 95

Arg Gly Arg Gly Pro Ser Ser Trp Met Ala Ala Gly Ile Lys Ser Ser 100 105 110

Leu Gly Leu Ala Arg Arg Arg Ala Cys Gly Trp Trp Thr Gly Met Pro 115 120 125

Gly Ser Ser Pro Gly Ser Leu Leu Pro Ser Asn Arg Leu Ser Leu Val

Pro Leu Val Pro Ser Ala Ser Met Thr Arg Leu Met Arg Ser Arg Thr 145 150 155 160

Ala Ser Gly Ser Ser Val Thr Ser Leu Asp Gly Thr Arg Ser Arg Ser 165 170 175

His Thr Ser Glu Gly Thr Arg Ser Arg Ser His Thr Ser Glu Gly Thr

399

180 185 190

Arg Ser Arg Ser His Thr Ser Glu Gly Ala His Leu Asp Ile Thr Pro 195 200

Asn Ser Gly Ala Ala Gly Asn Ser Ala Gly Pro Lys Ser Met Glu Val 215 220

Ser Cys 225

<210> 309

<211> 208 <212> PRT <213> Homo sapien

<400> 309

Met Lys Leu Leu Ser Leu Val Ala Val Gly Cys Leu Leu Val Pro 5

Pro Ala Glu Ala Asn Lys Val Arg Glu Val Ser Leu Gln His Leu Val 25

Thr Thr Thr Val His Gly His Pro Val Tyr Arg Ala Asp Ser Glu Ser

Ser Glu Asp Ile Arg Cys Lys Cys Ile Cys Pro Pro Tyr Arg Asn Ile

Ser Gly His Ile Tyr Asn Gln Asn Val Ser Gln Lys Asp Cys Asn Cys 75

Leu His Val Val Glu Pro Met Pro Val Pro Gly His Asp Val Glu Ala

Tyr Cys Leu Leu Cys Glu Cys Arg Tyr Glu Glu Arg Ser Thr Thr

Ile Lys Val Ile Ile Val Ile Tyr Leu Ser Val Val Gly Ala Leu Leu 120 115

Leu Tyr Met Ala Phe Leu Met Leu Val Asp Pro Leu Ile Arg Lys Pro 135

Asp Ala Tyr Thr Glu Gln Leu His Asn Glu Glu Glu Asn Glu Asp Ala 150 155

400

Arg Ser Met Ala Ala Ala Ala Ala Ser Leu Gly Gly Pro Arg Ala Asn 165 170 175

Thr Val Leu Glu Arg Val Glu Gly Ala Gln Gln Arg Trp Lys Leu Gln
180 185 190

Val Gln Glu Gln Arg Lys Thr Val Phe Asp Arg His Lys Met Leu Ser 195 200 205

<210> 310

<211> 170

<212> PRT

<213> Homo sapien

<400> 310

Met Thr Arg Gln Gly Pro Gln Pro Ala Ala Leu Gly Glu Ala Gln Pro 1 5 10 15

Pro Ser Leu Gly Lys Val Arg Leu Trp Gly Ser Phe Phe Pro Cys Gln 20 25 30

Thr Phe Arg Ile Gln Asp Pro Ser Gly Leu Pro Cys Gln Ile Phe Ser 35 40 45

Phe Phe Leu Pro Thr Thr Gly Cys Ser Leu Tyr Gly Ser Ser Cys Cys 50 55 60

Ile Pro Arg Gly Thr Pro Ser Lys His Ser Pro Gly Ala Cys Gly Arg 65 70 75 80

Cys Pro Ala Ala Val Glu Ala Ala Gly Ala Gly Ala Glu Asp Ser 85 90 95

Leu Arg Ser Ala Gln Asp Ala Gln Leu Asp Gly Leu Val Trp Leu Gly
100 105 110

Gln Gly Pro Asn Thr Met Ala Ala Ser Phe Gln Ala Gly Gln Ser Arg

Gly Leu Leu Leu Pro Ser Leu Gly Ser Ser Leu Pro Phe Lys Ser Leu 130 135 140

Trp His Phe Ser Ser Phe Ser Leu Thr Leu Glu Met Leu Tyr Leu Ala 145 150 155 160

Ile Leu Ile Arg Glu Glu Gly Cys Gly Leu

401

165 170

<210> 311

<211> 67 <212> PRT <213> Homo sapien

<400> 311

Pro Gln Val Cys Trp Asn Ser Pro Leu Ala Trp Ser Arg Pro Arg Tyr

Arg Arg Leu Leu Glu Gly Glu Ser Glu Gly Thr Arg Glu Glu Ser Lys 25

Ser Ser Met Lys Val Ser Ala Thr Pro Lys Ile Lys Ala Ile Thr Gln 35 40

Glu Thr Ile Asn Gly Arg Leu Val Leu Cys Gln Val Asn Glu Ile Gln 50 55

Lys His Ala 65

<210> 312 <211> 32 <212> PRT <213> Homo sapien

<400> 312

Pro Gln Val Cys Trp Asn Ser Pro Leu Ala Trp Ser Arg Pro Ser Thr

Ala Leu Lys Glu Lys Arg Asn Lys Lys Glu Val Glu Thr Thr Lys Val

<210> 313

<211> 74 <212> PRT <213> Homo sapien

<400> 313

Ala Ala Gly Val Leu Glu Phe Ala Leu Ser Val Val Ala Ala Glu Tyr

Cys Phe Glu Gly Glu Lys Glu Gln Glu Arg Gly Arg Asn Asn Lys Ser 20 25 30

Leu Thr Leu Phe Ser Pro Val Phe Pro Asn Ile Phe Asp Leu Glu Thr

402

45 35 40

Cys Phe Leu Arg Leu Pro Leu Ile Ser His Arg Lys Val Pro Gly Asp 55 60

Cys Ser Leu Gly Gln Val Ala Leu Ser Asp

<210> 314

<211> 66

<212> PRT <213> Homo sapien

<400> 314

Met His Val Glu Arg Arg Ser Val Met Asp Ser Gly Arg Pro Gly Arg

Trp Gln Gly Ser Val Ala Gly Ser Leu Ser Ser Leu Glu Ser Ala Thr 20 25

Thr Asp Ser Asp Leu Asp Tyr Asp Tyr Leu Gln Asn Trp Gly Pro Arg 35 40

Phe Lys Lys Leu Ala Asp Leu Tyr Gly Ser Lys Asp Thr Phe Asp Asp

Asp Ser 65

<210> 315

<211> 94 <212> PRT <213> Homo sapien

<400> 315

Thr Ser Ser Leu Ala Ser Gln Arg Leu Lys Met Asn Ser Asp Ala Phe

Ile Leu Leu Leu Tyr Met Asn Arg Ala Leu Arg Thr Ser Pro Val Ser 30 20 25

Phe His Ser Ile Leu Leu Ser Val His Asp Ala Pro Ala Thr Leu Ala 35 40

Ile Phe Arg Phe Leu Ile Gln Lys Lys Thr Arg Ser Phe Ser Met Glu

403

Ser Arg Ser Pro Leu Leu Phe Cys Ile Asp Asp Asn Ser Leu Asn Leu 70 75

Phe Cys Phe Leu Ala Leu Cys Met Cys Val Gly Gly Trp Asp

<210> 316

<211> 30

<212> PRT <213> Homo sapien

<400> 316

Tyr Ala Leu Ile Gly Thr Gly Leu Tyr Leu Glu Arg Arg Gln Cys Asp

Gly Cys Val Val Ala Ala Glu Val Asp Leu Val Leu Arg Asn 25

<210> 317

<211> 94 <212> PRT <213> Homo sapien

<400> 317

Thr Ser Ser Leu Ala Ser Gln Arg Leu Lys Met Asn Ser Asp Ala Phe

Ile Leu Leu Tyr Met Asn Arg Ala Leu Arg Thr Ser Pro Val Ser

Phe His Ser Ile Leu Leu Ser Val His Asp Ala Pro Ala Thr Leu Ala 40

Ile Phe Arg Phe Leu Ile Gln Lys Lys Thr Arg Ser Phe Ser Met Glu 50 55

Ser Arg Ser Pro Leu Leu Phe Cys Ile Asp Asp Asn Ser Leu Asn Leu

Phe Cys Phe Leu Ala Leu Cys Met Cys Val Gly Gly Trp Asp

<210> 318

<211> 147

<212> PRT

<213> Homo sapien

<400> 318

404

Met Asp Asp Ser Thr Glu Arg Glu Gln Ser Arg Leu Thr Ser Cys Leu

Lys Lys Arg Glu Glu Met Lys Leu Lys Glu Cys Val Ser Ile Leu Pro 25

Arg Lys Glu Ser Pro Ser Val Arg Ser Ser Lys Asp Gly Lys Leu Leu 40

Ala Ala Thr Leu Leu Leu Ala Leu Leu Ser Cys Cys Leu Thr Val Val

Ser Phe Tyr Gln Val Ala Ala Leu Gln Gly Asp Leu Ala Ser Leu Arg

Ala Glu Leu Gln Gly His His Ala Glu Lys Leu Pro Ala Gly Ala Gly

Ala Pro Lys Ala Gly Leu Glu Glu Ala Pro Ala Val Thr Ala Gly Leu

Lys Val Ser Leu Gln Gln Leu Gln Asp Ala Gly Lys Ile Leu Pro Thr

Leu Leu Pro Leu Pro Arg Leu Ser Cys Leu Ser Asn Asn Leu Lys Phe

Phe Cys Ser 145

<210> 319 <211> 353 <212> PRT <213> Homo sapien

<400> 319

Met Asp His His Phe Ile Ala Glu Phe Lys Arg Thr His Lys Lys Asp

Ile Ser Glu Asn Lys Arg Ala Val Arg Arg Leu Arg Thr Ala Cys Glu

Arg Ala Lys Arg Thr Leu Ser Ser Ser Thr Gln Ala Ser Ile Glu Ile 40

Asp Ser Leu Tyr Glu Gly Ile Asp Phe Tyr Thr Ser Ile Thr Arg Ala 55

405

Arg Phe Glu Glu Leu Asn Ala Asp Leu Phe Arg Gly Thr Leu Asp Pro 65 70 75 80

Val Glu Lys Ala Leu Arg Asp Ala Lys Leu Asp Lys Ser Gln Ile His 85 90 95

Asp Ile Val Leu Val Gly Gly Ser Thr Arg Ile Pro Lys Ile Gln Lys
100 105 110

Leu Leu Gln Asp Phe Phe Asn Gly Lys Glu Leu Asn Lys Ser Ile Asn 115 120 125

Pro Asp Glu Ala Val Ala Tyr Gly Ala Ala Val Gln Ala Ala Ile Leu 130 135 140

Ser Gly Asp Lys Ser Glu Asn Val Gln Asp Leu Leu Leu Leu Asp Val 145 150 150 160

Thr Pro Leu Ser Leu Gly Ile Glu Thr Ala Gly Gly Val Met Thr Val

Leu Ile Lys Arg Asn Thr Thr Ile Pro Thr Lys Gln Thr Gln Thr Phe 180 185 190

Thr Thr Tyr Ser Asp Asn Gln Pro Gly Val Leu Ile Gln Val Tyr Glu
195 200 205

Gly Glu Arg Ala Met Thr Lys Asp Asn Asn Leu Leu Gly Lys Phe Glu 210 215 220

Leu Thr Gly Ile Pro Pro Ala Pro Arg Gly Val Pro Gln Ile Glu Val 225 230 235 240

Thr Phe Asp Ile Asp Ala Asn Gly Ile Leu Asn Val Ser Ala Val Asp 245 250 255

Lys Ser Thr Gly Lys Glu Asn Lys Ile Thr Ile Thr Asn Asp Lys Gly 260 265 270

Arg Leu Ser Lys Glu Asp Ile Glu Arg Met Val Gln Glu Ala Glu Lys 275 280 285

Tyr Lys Ala Glu Asp Glu Lys Gln Arg Asp Lys Val Ser Ser Lys Asn 290 295 300

406

Ser Leu Glu Ser Tyr Ala Phe Asn Met Lys Ala Thr Val Glu Asp Glu

Asn Phe Arg Gln Ile Thr Val Arg Gln Gln Ser Ser Trp Gln Gly Tyr 330

Glu Tyr Gln Leu Ala Asp Lys Ile Ser Ser Gly Gly Phe Asp Ile

Thr

<210> 320 <211> 205

<212> PRT

<213> Homo sapien

<220>

<221> MISC_FEATURE

<222> (201)..(201)

<223> x=any amino acid

<220>

<221> MISC_FEATURE

<222> (204)..(204) <223> x=any amino acid

<400> 320

Gln Leu Leu Met Gly Ala Ala Val Gln Ala Ala Ile Leu Ser Gly

Asp Lys Ser Glu Asn Val Gln Asp Leu Leu Leu Asp Val Thr Pro 25 20

Leu Ser Leu Gly Ile Glu Thr Ala Gly Gly Val Met Thr Val Leu Ile 35 40

Lys Arg Asn Thr Thr Ile Pro Thr Lys Gln Thr Gln Thr Phe Thr Thr

Tyr Ser Asp Asn Gln Pro Gly Val Leu Ile Gln Val Tyr Glu Gly Glu

Arg Ala Met Thr Lys Asp Asn Asn Leu Leu Gly Lys Phe Glu Leu Thr 90 85

Gly Ile Pro Pro Ala Pro Arg Gly Val Pro Gln Ile Glu Val Thr Phe

407

100 105 110

Asp Ile Asp Ala Asn Gly Ile Leu Asn Val Ser Ala Val Asp Lys Ser 115 120 125

Thr Gly Lys Glu Asn Lys Ile Thr Ile Thr Asn Asp Lys Gly Arg Leu 130 140

Ser Lys Glu Asp Ile Glu Arg Met Val Gln Glu Ala Glu Lys Tyr Lys 145 150 155 160

Ala Glu Asp Glu Lys Gln Arg Asp Lys Val Ser Ser Lys Asn Ser Leu 165 170 175

Glu Ser Tyr Ala Phe Asn Met Lys Ala Thr Val Glu Asp Glu Asn Phe 180 185 190

Arg Gln Ile Thr Val Arg Gln Gln Xaa Ser Gly Xaa Leu 195 200 205

<210> 321

<211> 118

<212> PRT

<213> Homo sapien

<400> 321

Met Cys Pro Arg Cys Met Leu Glu Arg Arg Ser Val Met Asp Gly Arg 1 5 10 15

Gly Arg Gly Gly Pro Ala Ser Gly His His Ser Gly Pro Ser Leu 20 25 30

His Ala Glu Asn His Thr Ser Gln Thr Phe Thr Gln His Phe Leu Pro 35 40 45

Gln Ser Gln Lys Met His Lys Glu Glu His Glu Val Ala Val Leu Gly 50 55 60

Ala Pro Pro Ser Thr Ile Leu Pro Arg Ser Thr Val Ile Asn Ile His 65 70 75 80

Ser Glu Thr Ser Val Pro Asp His Val Val Trp Ser Leu Phe Asn Thr 85 90 95

Leu Phe Met Asn Pro Cys Cys Leu Asn Trp Cys Cys Leu Gly Phe Asn 100 105 110

408

Ser Ile Arg Leu Thr Pro 115

<210> 322

<211> 183

<212> PRT

<213> Homo sapien

<400> 322

Arg Val Asp Ser Tyr Ser Glu Cys Ala Leu Asp His Ala Arg Ala Ala 1 5 10 15

Gln Cys Asp Gly Trp Ser Arg Ala Arg Gly Gly Pro Ala Ser Gly His 20 25 30

His Ser Gly Pro Ser Leu His Ala Glu Asn His Thr Ser Gln Thr Phe 35 40 45

Thr Gln His Phe Leu Pro Gln Ser Gln Lys Met His Lys Glu Glu His 50 55 60

Glu Val Ala Val Leu Gly Ala Pro Pro Ser Thr Ile Leu Pro Arg Ser 65 70 75 80

Thr Val Ile Asn Ile His Ser Glu Thr Ser Val Pro Asp His Val Val 85 90 95

Trp Ser Leu Phe Asn Thr Leu Phe Leu Asn Trp Cys Cys Leu Gly Phe
100 105 110

Ile Ala Phe Ala Tyr Ser Val Lys Ser Arg Asp Arg Lys Met Val Gly
115 120 125

Asp Val Thr Gly Ala Gln Ala Tyr Ala Ser Thr Ala Lys Cys Leu Asn 130 135 140

Ile Trp Ala Leu Ile Leu Gly Ile Leu Met Thr Ile Gly Phe Ile Leu 145 150 155 160

Leu Leu Val Phe Gly Ser Val Thr Val Tyr His Ile Met Leu Gln Ile 165 170 175

Ile Gln Glu Lys Arg Gly Tyr

<210> 323

409

<211> 87

<212> PRT <213> Homo sapien

<400> 323

Met Asn His Thr Val Gln Thr Phe Phe Ser Pro Val Asn Ser Gly Gln

Pro Pro Asn Tyr Glu Met His Lys Glu Glu His Glu Val Ala Val Leu

Gly Ala Pro Pro Ser Thr Ile Leu Pro Arg Ser Thr Val Ile Asn Ile 40

His Ser Glu Thr Ser Val Pro Asp His Val Val Trp Ser Leu Phe Asn

Thr Leu Phe Met Asn Pro Cys Cys Leu Asn Trp Cys Cys Leu Gly Phe 75 70

Asn Ser Ile Arg Leu Thr Pro 85

<210> 324

<211> 156 <212> PRT <213> Homo sapien

<400> 324

Pro Asp Arg Arg Trp Ser Ser Leu Asp Thr Met Asn His Thr Val Gln

Thr Phe Phe Ser Pro Val Asn Ser Gly Gln Pro Pro Asn Tyr Glu Met

His Lys Glu Glu His Glu Val Ala Val Leu Gly Ala Pro Pro Ser Thr 40

Ile Leu Pro Arg Ser Thr Val Ile Asn Ile His Ser Glu Thr Ser Val 55

Pro Asp His Val Val Trp Ser Leu Phe Asn Thr Leu Phe Leu Asn Trp

Cys Cys Leu Gly Phe Ile Ala Phe Ala Tyr Ser Val Lys Ser Arg Asp

410

Arg Lys Met Val Gly Asp Val Thr Gly Ala Gln Ala Tyr Ala Ser Thr 105

Ala Lys Cys Leu Asn Ile Trp Ala Leu Ile Leu Gly Ile Leu Met Thr

Ile Gly Phe Ile Leu Leu Leu Val Phe Gly Ser Val Thr Val Tyr His

Ile Met Leu Gln Ile Ile Gln Glu Lys Arg Gly Tyr

<210> 325

<211> 76 <212> PRT <213> Homo sapien

<400> 325

Met His Ala Arg Ala Ala Gln Cys Asp Gly Ser Trp Ser Arg Pro Ser

Val Val Glu Ala Gly His Leu Glu Leu Arg Gln Ser Arg Arg Asn

Gly Glu Asp Ser Gly Gly Gly Gly Arg Pro Gly Trp Asp Glu Val Trp 40

Trp Trp Val Val Ser Leu Gly Gly Asp Cys Ile Leu Gln His Leu Asn 50

Ser Val Cys Leu Leu Cys Glu Thr Ser Ala Asp His

<210> 326 <211> 105 <212> PRT

<213> Homo sapien

<400> 326

Asp Pro Ser Ile Phe Leu Lys Ser Pro Leu Gly Trp Leu Arg Gly Arg

Gly Leu Gly Val Gly Gly Leu Ser Arg Ser Asp Cys Arg Asp Arg Leu

Val Cys Ser Val Asn Thr Asn Lys Ile Asp Leu Leu Ser Gly Lys Arg 35 40

411

Lys Arg Lys Glu Lys Lys Thr Leu Cys Gly Ile Thr Gln Trp Val Ile

Arg Arg Val Pro Val Gly Trp Thr Leu Val Phe Pro Gly Ser Gln Phe 70

Pro Ala Gln His Met Ser Thr Asn Gly Glu Thr Thr Arg Ala Ala Gly

Gly Gln Trp Lys Lys Arg Thr His Gly 100

<210> 327

<211> 109 <212> PRT <213> Homo sapien

<400> 327

Met Pro Ser Ala Met Thr Val Tyr Ala Leu Val Val Ser Tyr Phe

Leu Ile Thr Gly Gly Ile Ile Tyr Asp Val Ile Val Glu Pro Pro Ser

Val Gly Ser Met Thr Asp Glu His Gly His Gln Arg Pro Val Ala Phe

Leu Ala Tyr Arg Val Asn Gly Gln Tyr Ile Met Glu Gly Leu Ala Ser

Ser Phe Leu Phe Thr Met Gly Gly Leu Gly Phe Ile Ile Leu Asp Arg 75 65 70

Ser Asn Ala Pro Asn Ile Pro Lys Leu Asn Arg Phe Leu Leu Leu Phe 85 90

Met Trp Ile Arg Leu Cys Pro Ile Glu Phe Phe His Gly 100 105

<210> 328 <211> 153 <212> PRT

<213> Homo sapien

<400> 328

Pro Leu Ala Trp Ser Arg Pro Arg Tyr Arg Val Pro Phe Leu Val Leu 10

Glu Cys Pro Asn Leu Lys Leu Lys Pro Pro Trp Leu His Met Pro 20 25 30

Ser Ala Met Thr Val Tyr Ala Leu Val Val Val Ser Tyr Phe Leu Ile 35 40 45

Thr Gly Gly Ile Ile Tyr Asp Val Ile Val Glu Pro Pro Ser Val Gly 50 60

Ser Met Thr Asp Glu His Gly His Gln Arg Pro Val Ala Phe Leu Ala 65 70 75 80

Tyr Arg Val Asn Gly Gln Tyr Ile Met Glu Gly Leu Ala Ser Ser Phe 85 90 95

Leu Phe Thr Met Gly Gly Leu Gly Phe Ile Ile Leu Asp Arg Ser Asn 100 105 110

Ala Pro Asn Ile Pro Lys Leu Asn Arg Phe Leu Leu Phe Ile Gly
115 120 125

Phe Val Cys Val Leu Leu Ser Phe Phe Met Ala Arg Val Phe Met Arg 130 135 140

Met Lys Leu Pro Gly Tyr Leu Met Gly

<210> 329

<211> 61

<212> PRT

<213> Homo sapien

<400> 329

Leu Leu Gly Arg Ala Gly Leu Phe Pro Gly Gly Ala Trp Gly Leu Arg
1 5 10 15

Pro Arg Thr Ala Leu Ala Ala Thr Asn Met Glu Thr Leu Tyr Arg Val 20 25 30

Pro Phe Leu Val Leu Glu Cys Pro Asn Leu Lys Leu Lys Lys Pro Pro 35 40 45

Trp Leu His Met Pro Ser Ala Met Thr Val Asn Asn Leu 50 55 60

413

<210> 330 <211> 102

<212> PRT

<213> Homo sapien

<400> 330

Ile Ile Tyr Asp Val Ile Val Glu Pro Pro Ser Val Gly Ser Met Thr

Asp Glu His Gly His Gln Arg Pro Val Ala Phe Leu Ala Tyr Arg Val

Asn Gly Gln Tyr Ile Met Glu Gly Leu Ala Ser Ser Phe Leu Phe Thr

Met Gly Gly Leu Gly Phe Ile Ile Leu Asp Arg Ser Asn Ala Pro Asn

Ile Pro Lys Leu Asn Arg Phe Leu Leu Phe Ile Gly Phe Val Cys 70

Val Leu Leu Ser Phe Phe Met Ala Arg Val Phe Met Arg Met Lys Leu 90

Pro Gly Tyr Leu Met Gly

<210> 331

<211> 83 <212> PRT <213> Homo sapien

<400> 331

Met Glu Thr Leu Tyr Arg Val Pro Phe Leu Val Leu Glu Cys Pro Asn

Leu Lys Leu Lys Lys Pro Pro Trp Leu His Met Pro Ser Ala Met Thr 20

Val Tyr Ala Leu Val Val Ser Tyr Phe Leu Ile Thr Gly Gly Ile

Ile Tyr Asp Val Ile Val Glu Pro Pro Ser Val Gly Ser Met Thr Asp

Glu His Gly His Gln Arg Pro Val Ala Phe Leu Ala Tyr Arg Gly Tyr

414

Leu Met Gly

<210> 332 <211> 123 <212> PRT

<213> Homo sapien

<400> 332

Met Pro Ser Ala Met Thr Val Tyr Ala Leu Val Val Val Ser Tyr Phe

Leu Ile Thr Gly Gly Ile Ile Tyr Asp Val Ile Val Glu Pro Pro Ser

Val Gly Ser Met Thr Asp Glu His Gly His Gln Arg Pro Val Ala Phe

Leu Ala Tyr Arg Val Asn Gly Gln Tyr Ile Met Glu Gly Leu Ala Ser

Ser Phe Leu Phe Thr Met Gly Gly Leu Gly Phe Ile Ile Leu Asp Arg

Ser Asn Ala Pro Asn Ile Pro Lys Leu Asn Arg Phe Leu Leu Leu Phe

Ile Gly Phe Val Cys Val Leu Leu Ser Phe Phe Met Ala Arg Val Phe

Met Arg Met Lys Leu Pro Gly Tyr Leu Met Gly 120

<210> 333 <211> 83 <212> PRT

<213> Homo sapien

<400> 333

Met Glu Thr Leu Tyr Arg Val Pro Phe Leu Val Leu Glu Cys Pro Asn

Leu Lys Leu Lys Lys Pro Pro Trp Leu His Met Pro Ser Ala Met Thr

Val Tyr Ala Leu Val Val Val Ser Tyr Phe Leu Ile Thr Gly Gly Ile 40 35

415

Ile Tyr Asp Val Ile Val Glu Pro Pro Ser Val Gly Ser Met Thr Asp 50

Glu His Gly His Gln Arg Pro Val Ala Phe Leu Ala Tyr Arg Gly Tyr

Leu Met Gly

<210> 334 <211> 95

<212> PRT

<213> Homo sapien

<400> 334

Met Thr Glu Leu Glu Thr Ala Met Gly Met Ile Ile Asp Val Phe Ser

Arg Tyr Ser Gly Ser Glu Gly Ser Thr Gln Thr Leu Thr Lys Gly Glu

Leu Lys Val Leu Met Glu Lys Glu Leu Pro Gly Phe Leu Gln Ser Gly 40

Lys Asp Lys Asp Ala Val Asp Lys Leu Leu Lys Asp Leu Asp Ala Asn

Gly Asp Ala Gln Val Asp Phe Ser Glu Phe Ile Val Phe Val Ala Ala

Ile Thr Ser Ala Cys His Lys Tyr Phe Glu Lys Ala Gly Leu Lys

<210> 335 <211> 184 <212> PRT <213> Homo sapien

<400> 335

Ile Gln Ser Gln Cys Leu Gly Gly Ala His Pro Ser Lys Cys Lys Ser

Ser Arg Gly Val Thr Glu Leu Ala Asn Arg Leu Val Cys Leu Val Phe 20 25

Leu Leu His Val Asp Ile Ile Leu Leu Ile Leu Leu Pro Gly Pro Pro

35 40 45

Gln Gly Tyr Arg Lys Val Lys Ser Ser Pro Glu Pro Ile Met Ser Ser 50 55 60

Leu Leu Thr Glu Gly Thr Cys Pro Ala Thr Ala Arg Val Ala Ala Arg 65 70 75 80

Glu Glu Gly Gly Ser Glu Ser Ser Thr Met Thr Glu Leu Glu Thr Ala 85 90 95

Met Gly Met Ile Ile Asp Val Phe Ser Arg Tyr Ser Gly Ser Glu Gly 100 105 110

Ser Thr Gln Thr Leu Thr Lys Gly Glu Leu Lys Val Leu Met Glu Lys
115 120 125

Glu Leu Pro Gly Phe Leu Gln Ser Gly Lys Asp Lys Asp Ala Val Asp 130 135 140

Lys Leu Leu Lys Asp Leu Asp Ala Asn Gly Asp Ala Gln Val Asp Phe 145 150 155 160

Ser Glu Phe Ile Val Phe Val Ala Ala Ile Thr Ser Ala Cys His Lys 165 170 175

Tyr Phe Glu Lys Ala Gly Leu Lys 180

<210> 336 <211> 64

<212> PRT

<213> Homo sapien

<400> 336

Cys Arg Ile Arg Arg Ala Arg His Glu Ser Pro Gly Leu Arg Lys Gly
1 5 10 15

Thr Ser Leu Leu Arg Ser Asn Thr Gln Lys Gly Arg Phe Phe Gln Gly 20 25 30

Cys Arg Ile Val Gly Ser Gly Pro Lys Trp Leu Met Ala Pro Ser Lys 35 40 45

Thr Phe Ile Phe Asn Asn Val Lys Asp Leu Arg Ile Lys Arg Ile Gly 50 60

417

<210> 337 <211> 51 <212> PRT <213> Homo sapien

<400> 337

Ser Ser Glu Ile Pro Lys Asn Ser Cys Asn Val Arg Val Arg Lys Asp

Gly Val Tyr Ser Ser Leu His Phe Tyr Gly Glu Ile Lys Ser Phe Ser

Asn Glu Leu Lys Lys Lys Lys Gly Gly Arg Ser Arg Ser Arg Thr

Ser Phe Phe 50

<210> 338

<211> 140 <212> PRT <213> Homo sapien

<400> 338

Pro Cys Gly Pro Arg Leu Pro Phe Lys Arg Ala Gly Pro Ala Pro Ala

Ala Pro His Arg Gly Asp Gln Glu Ala Arg Trp Phe Ser Gly Ala Ala

Pro Ser Arg Leu Pro Pro Ala Pro Arg Phe Ser Gly Pro Ala Ala Ile 40

Phe Leu Ser Ala Gln Gly Pro Pro Ser Gly Ala Met Gln Pro Thr Leu

Leu Leu Ser Leu Leu Gly Ala Val Gly Leu Ala Ala Val Asn Ser Met 70 75

Pro Val Asp Asn Arg Asn His Asn Glu Gly Met Val Thr Arg Cys Ile 85

Ile Glu Val Leu Ser Asn Ala Leu Ser Lys Ser Ser Ala Pro Pro Ile 105 100

Thr Pro Glu Cys Arg Gln Val Leu Lys Thr Lys Lys Arg Thr Arg Lys 115 120

418

Leu Gly Cys Asn Gly Phe Gly Thr Thr Glu Asp Ser 130 135

<210> 339 <211> 141 <212> PRT <213> Homo sapien

<400> 339

Met Lys Gly Asp Tyr Tyr Arg Tyr Leu Ala Glu Val Ala Ala Gly Asp

Glu Pro Glu Arg Asp Trp Pro Ile Arg Ser Thr Gln Ser Ile Pro Lys

Gly Lys Ala Phe Glu Ile Ser Lys Lys Glu Met Gln Pro Thr His Pro

·Ile Arg Leu Gly Leu Ala Leu Asn Phe Ser Val Phe Tyr Tyr Glu Ile

Leu Asn Ser Pro Glu Lys Ala Trp Ser Leu Ala Lys Thr Ala Phe Asp 70

Glu Ala Ile Ala Glu Leu Asp Thr Leu Ser Glu Glu Ser Tyr Lys Asp

Ser Thr Leu Ile Met Gln Leu Leu Arg Asp Asn Leu Thr Leu Trp Thr

Ser Asp Thr Gln Gly Asp Glu Ala Glu Ala Gly Glu Gly Glu Asn 120

Ser Ala Gly Leu Ser Lys Val Leu Ser Ala Ser Val Ser 135

<210> 340

<211> 122 <212> PRT <213> Homo sapien

<220>

<221> MISC_FEATURE

<222> (83)..(83) <223> x=any amino acid

<220>

419

<221> MISC_FEATURE

<222> (117)..(117)

<223> x=any amino acid

<400> 340

Ala Arg Ala Pro Ala Gly Glu Lys Ile Glu Thr Glu Leu Arg Asp Ile

Cys Asn Gln Cys Thr Val Ser Leu Arg Lys Val Leu Asp Pro Asn Ala 20 25 . 30

Ser Gln Ala Glu Ser Lys Val Phe Tyr Leu Lys Met Lys Gly Asp Tyr 40

Tyr Arg Tyr Leu Ala Glu Val Ala Ala Gly Asp Glu Pro Glu Arg Asp

Trp Pro Ile Arg Ser Thr Gln Ser Ile Pro Lys Gly Lys Ala Phe Glu

Ile Ser Xaa Lys Glu Met Gln Pro Thr His Pro Ile Arg Leu Gly Leu 90 85

Ala Leu Asn Phe Ser Val Phe Tyr Tyr Glu Ile Leu Asn Ser Pro Glu 100 105

Lys Ala Trp Ser Xaa Cys Lys Asp Ser Phe 115 120

<210> 341 <211> 51

<212> PRT

<213> Homo sapien

<220>

<221> MISC_FEATURE

<222> (5)..(5) <223> x=any amino acid

<400> 341

Gly Arg Gly Arg Xaa Arg Ala Thr Cys Leu Ser Gly Arg Cys Trp Ala

Arg Thr Val Glu Met Ser Glu Lys Lys Gln Pro Val Asp Leu Gly Leu 25

Leu Glu Glu Asp Asp Glu Phe Glu Glu Phe Pro Ala Glu Gly Leu Gly

420

35 40 45

Trp Leu Arg 50

<210> 342 <211> 90

<212> PRT <213> Homo sapien

<220>

<221> MISC_FEATURE

<222> (5)..(5) <223> x=any amino acid

<400> 342

Gly Arg Gly Arg Xaa Arg Ala Thr Cys Leu Ser Gly Arg Cys Trp Ala

Arg Thr Val Glu Met Ser Glu Lys Lys Gln Pro Val Asp Leu Gly Leu

Leu Glu Glu Asp Asp Glu Phe Glu Glu Phe Pro Ala Glu Asp Trp Ala

Gly Leu Asp Glu Asp Glu Asp Ala His Val Trp Glu Asp Asn Trp Asp

Asp Asp Asn Val Glu Asp Asp Phe Ser Asn Gln Leu Arg Ala Glu Leu

Glu Lys His Gly Tyr Lys Met Glu Thr Ser 85

<210> 343 <211> 44 <212> PRT

<213> Homo sapien

<400> 343

Leu Ala Trp Ser Arg Pro Arg Cys Gly Ser Asp Gly Gly Val Ser Leu

Arg Lys Ser Glu Gly Ser Asn Phe Ser Ala Tyr Leu Gly Gly Val Gly

Arg Gly Gln Ser Arg Cys Gln Arg Lys Ser Ser Arg

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<210> 344 <211> 88 <212> PRT

<213> Homo sapien

<400> 344

Lys Lys Lys Lys Lys His Pro Lys Leu Val Leu Ser Leu Ser Leu

Ser Pro Arg Val Glu Ala Leu Ala Gly Met Gly Gly His Lys Leu Gly

Pro Gln Pro Ala Gln Ser Ala His Ser Asp Leu Gly Gly Lys Leu Gly

Gly Thr Pro Gly Thr His Tyr His Ala Gly Ala Gly Arg Ser Arg Cys

Thr Gln Gly Ile Pro Pro Thr Ala Glu Gly Ser Arg Asn Ser Thr Ser

Pro Thr Ile Leu His Gln Thr Val 85[.]

<210> 345

<211> 680 <212> PRT <213> Homo sapien

<400> 345

Met Ala Leu Glu Ile His Met Ser Asp Pro Met Cys Leu Ile Glu Asn

Phe Asn Glu Gln Leu Lys Val Asn Gln Glu Ala Leu Glu Ile Leu Ser

Ala Ile Thr Gln Pro Val Val Val Val Ala Ile Val Gly Leu Tyr Arg

Thr Gly Lys Ser Tyr Leu Met Asn Lys Leu Ala Gly Lys Asn Lys Gly

Phe Ser Val Ala Ser Thr Val Gln Ser His Thr Lys Gly Ile Trp Ile 70 75

Trp Cys Val Pro His Pro Asn Trp Pro Asn His Thr Leu Val Leu Leu

85 90 95

Asp Thr Glu Gly Leu Gly Asp Val Glu Lys Ala Asp Asn Lys Asn Asp 100 105 110

Ile Gln Ile Phe Ala Leu Ala Leu Leu Ser Ser Thr Phe Val Tyr 115 120 125

Asn Thr Val Asn Lys Ile Asp Gln Gly Ala Ile Asp Leu Leu His Asn 130 135 140

Val Thr Glu Leu Thr Asp Leu Leu Lys Ala Arg Asn Ser Pro Asp Leu 145 150 155 160

Asp Arg Val Glu Asp Pro Ala Asp Ser Ala Ser Phe Phe Pro Asp Leu 165 170 175

Val Trp Thr Leu Arg Asp Phe Cys Leu Gly Leu Glu Ile Asp Gly Gln
180 185 190

Leu Val Thr Pro Asp Glu Tyr Leu Glu Asn Ser Leu Arg Pro Lys Gln 195 200 205

Gly Ser Asp Gln Arg Val Gln Asn Phe Asn Leu Pro Arg Leu Cys Ile 210 215 220

Gln Lys Phe Phe Pro Lys Lys Cys Phe Ile Phe Asp Leu Pro Ala 225 230 235 240

His Gln Lys Lys Leu Ala Gln Leu Glu Thr Leu Pro Asp Asp Glu Leu 245 250 255

Glu Pro Glu Phe Val Gln Gln Val Thr Glu Phe Cys Ser Tyr Ile Phe 260 265 270

Ser His Ser Met Thr Lys Thr Leu Pro Gly Gly Ile Met Val Asn Gly
275 280 285

Ser Arg Leu Lys Asn Leu Val Leu Thr Tyr Val Asn Ala Ile Ser Ser 290 295 300

Gly Asp Leu Pro Cys Ile Glu Asn Ala Val Leu Ala Leu Ala Gln Arg 305 310 315 320

Glu Asn Ser Ala Ala Val Gln Lys Ala Ile Ala His Tyr Asp Gln Gln 325 330 335

Met Gly Gln Lys Val Gln Leu Pro Met Glu Thr Leu Gln Glu Leu Leu 340 345 350

Asp Leu His Arg Thr Ser Glu Arg Glu Ala Ile Glu Val Phe Met Lys 355 360 365

Asn Ser Phe Lys Asp Val Asp Gln Ser Phe Gln Lys Glu Leu Glu Thr 370 380

Leu Leu Asp Ala Lys Gln Asn Asp Ile Cys Lys Arg Asn Leu Glu Ala 385 390 395 400

Ser Ser Asp Tyr Cys Ser Ala Leu Leu Lys Asp Ile Phe Gly Pro Leu 405 410 415

Glu Glu Ala Val Lys Gln Gly Ile Tyr Ser Lys Pro Gly Gly His Asn 420 425 430

Leu Phe Ile Gln Lys Thr Glu Glu Leu Lys Ala Lys Tyr Tyr Arg Glu
435 440 445

Pro Arg Lys Gly Ile Gln Ala Glu Glu Val Leu Gln Lys Tyr Leu Lys 450 455 460

Ser Lys Glu Ser Val Ser His Ala Ile Leu Gln Thr Asp Gln Ala Leu 465 470 475 480

Thr Glu Thr Glu Lys Lys Lys Gly Glu Lys Lys Val Glu Ile Met 485 490 495

Gln Asp Arg Lys Lys Ser Ile Asn Phe Lys Leu Asn Leu Ala Trp Pro 500 505 510

Ser Trp Asp Val Lys Leu Glu Gln Glu Trp Gln Arg Cys Phe Leu Ala 515 520 525

Pro Gln Ala Tyr Leu Thr Gly Met Ile Leu His Cys Gly Tyr Leu Glu 530 535 540

Gly Lys Asn Asn Pro Trp Glu Phe Tyr Pro Gly Ser Trp Asn Asn His 545 550 555 560

Lys Gln Lys Trp Glu Ala Glu Gly Arg Gly Thr Leu Ile Leu Glu Lys 565 570 575

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Ile Ile Phe Phe Ser Ser Glu Ala Gln Val Lys Ala Glu Ala Glu Lys
580 585 590

Ala Glu Ala Gln Arg Leu Ala Ala Ile Gln Arg Gln Asn Glu Gln Met 595 600 605

Met Gln Glu Arg Glu Arg Leu His Gln Glu Gln Val 'Arg Gln Met Glu 610 620

Ile Ala Lys Gln Asn Trp Leu Ala Glu Gln Gln Lys Met Gln Gln Gln 625 630 635 640

Gln Met Gln Glu Gln Ala Ala Gln Leu Ser Thr Thr Phe Gln Ala Gln 645 650 655

Asn Arg Ser Leu Leu Ser Glu Leu Gln His Ala Gln Arg Thr Val Asn 660 665 670

Asn Asp Asp Pro Cys Val Leu Leu 675 680

<210> 346

<211> 544

<212> PRT

<213> Homo sapien

<400> 346

Ile Ile Thr Ser Arg Cys Pro Tyr Leu Ser Ser Gly Lys Ile Ile Leu 1 5 10 15

Ala Ser Ala Ala Tyr Lys Ser Gly Asn Gln Asn Ser Thr Tyr Ile Arg 20 25 30

Gln Ser Asn Ile Leu Asp Met Ala Leu Glu Ile His Met Ser Asp Pro 35 40 45

Met Cys Leu Ile Glu Asn Phe Asn Glu Gln Leu Lys Val Asn Gln Glu 50 55 60

Ala Leu Glu Ile Leu Ser Ala Ile Thr Gln Pro Val Val Val Val Ala 65 70 75 80

Ile Val Gly Leu Tyr Arg Thr Gly Lys Ser Tyr Leu Met Asn Lys Leu 85 90 95

Ala Gly Lys Asn Lys Gly Phe Ser Val Ala Ser Thr Val Gln Ser His

100 105 Thr Lys Gly Ile Trp Ile Trp Cys Val Pro His Pro Asn Trp Pro Asn His Thr Leu Val Leu Leu Asp Thr Glu Gly Leu Gly Asp Val Glu Lys Ala Asp Asn Lys Asn Asp Ile Gln Ile Phe Ala Leu Ala Leu Leu Leu Ser Ser Thr Phe Val Tyr Asn Thr Val Asn Lys Ile Asp Gln Gly Ala 165 Ile Asp Leu Leu His Asn Val Thr Glu Leu Thr Asp Leu Leu Lys Ala 185 Arg Asn Ser Pro Asp Leu Asp Arg Val Glu Asp Pro Ala Asp Ser Ala 200 Ser Phe Phe Pro Asp Leu Val Trp Thr Leu Arg Asp Phe Cys Leu Gly 215 Leu Glu Ile Asp Gly Gln Leu Val Thr Pro Asp Glu Tyr Leu Glu Asn 225 230 235 Ser Leu Arg Pro Lys Gln Gly Ser Asp Gln Arg Val Gln Asn Phe Asn Leu Pro Arg Leu Cys Ile Gln Lys Phe Pro Lys Lys Lys Cys Phe 260 265 Ile Phe Asp Leu Pro Ala His Gln Lys Lys Leu Ala Gln Leu Glu Thr 280 Leu Pro Asp Asp Glu Leu Glu Pro Glu Phe Val Gln Gln Val Thr Glu 290 295 Phe Cys Ser Tyr Ile Phe Ser His Ser Met Thr Lys Thr Leu Pro Gly 305 310 315 Gly Ile Met Val Asn Gly Ser Arg Leu Lys Asn Leu Val Leu Thr Tyr 325 330

Val Asn Ala Ile Ser Ser Gly Asp Leu Pro Cys Ile Glu Asn Ala Val

345

340

Leu Ala Leu Ala Gln Arg Glu Asn Ser Ala Ala Val Gln Lys Ala Ile

Ala His Tyr Asp Gln Gln Met Gly Gln Lys Val Gln Leu Pro Met Glu

Thr Leu Gln Glu Leu Leu Asp Leu His Arg Thr Ser Glu Arg Glu Ala

Ile Glu Val Phe Met Lys Asn Ser Phe Lys Asp Val Asp Gln Ser Phe

Gln Lys Glu Leu Glu Thr Leu Leu Asp Ala Lys Gln Asn Asp Ile Cys

Lys Arg Asn Leu Glu Ala Ser Ser Asp Tyr Cys Ser Ala Leu Leu Lys

Asp Ile Phe Gly Pro Leu Glu Glu Ala Val Lys Gln Gly Ile Tyr Ser

Lys Pro Gly Gly His Asn Leu Phe Ile Gln Lys Thr Glu Glu Leu Lys

Ala Lys Tyr Tyr Arg Glu Pro Arg Lys Gly Ile Gln Ala Glu Glu Val

Leu Gln Lys Tyr Leu Lys Ser Lys Glu Ser Val Ser His Ala Ile Leu 500 505

Gln Thr Asp Gln Ala Leu Thr Glu Thr Glu Lys Lys Lys Gly Glu 515

Lys Lys Val Glu Ile Met Gln Asp Arg Lys Lys Ser Ile Asn Phe Lys 535

<210> 347

<211> 487 <212> PRT <213> Homo sapien

<400> 347

Met Val Trp Gln Cys Cys Leu Met Leu Leu Glu Arg Arg Ser Val Met

427

Asp Gly Arg Pro Gly Arg Ala Trp Ser Arg Pro Arg Tyr Asn Thr Val 20 25 30

Asn Lys Ile Asp Gln Gly Ala Ile Asp Leu Leu His Asn Val Thr Glu 35 40 45

Leu Thr Asp Leu Leu Lys Ala Arg Asn Ser Pro Asp Leu Asp Arg Val 50 55 60

Glu Asp Pro Ala Asp Ser Ala Ser Phe Phe Pro Asp Leu Val Trp Thr 65 70 75 80

Leu Arg Asp Phe Cys Leu Gly Leu Glu Ile Asp Gly Gln Leu Val Thr 85 90 95

Pro Asp Glu Tyr Leu Glu Asn Ser Leu Arg Pro Lys Gln Gly Ser Asp 100 105 110

Gln Arg Val Gln Asn Phe Asn Leu Pro Arg Leu Cys Ile Gln Lys Phe 115 120 125

Phe Pro Lys Lys Lys Cys Phe Ile Phe Asp Leu Pro Ala His Gln Lys 130 140

Lys Leu Ala Gln Leu Glu Thr Leu Pro Asp Asp Glu Leu Glu Pro Glu 145 150 155 160

Phe Val Gln Gln Val Thr Glu Phe Cys Ser Tyr Ile Phe Ser His Ser 165 170 175

Met Thr Lys Thr Leu Pro Gly Gly Ile Met Val Asn Gly Ser Arg Leu 180 185 190

Lys Asn Leu Val Leu Thr Tyr Val Asn Ala Ile Ser Ser Gly Asp Leu
195 200 205

Pro Cys Ile Glu Asn Ala Val Leu Ala Leu Ala Gln Arg Glu Asn Ser 210 215 220

Ala Ala Val Gln Lys Ala Ile Ala His Tyr Asp Gln Gln Met Gly Gln 225 230 235 240

Lys Val Gln Leu Pro Met Glu Thr Leu Gln Glu Leu Leu Asp Leu His
245 250 255

Arg Thr Ser Glu Arg Glu Ala Ile Glu Val Phe Met Lys Asn Ser Phe

428

260 265 270

Lys Asp Val Asp Gln Ser Phe Gln Lys Glu Leu Glu Thr Leu Leu Asp 275 280 285

Ala Lys Gln Asn Asp Ile Cys Lys Arg Asn Leu Glu Ala Ser Ser Asp 290 295 300

Tyr Cys Ser Ala Leu Leu Lys Asp Ile Phe Gly Pro Leu Glu Glu Ala 305 310 315 320

Val Lys Gln Gly Ile Tyr Ser Lys Pro Gly Gly His Asn Leu Phe Ile 325 330 335

Gln Lys Thr Glu Glu Leu Lys Ala Lys Tyr Tyr Arg Glu Pro Arg Lys 340 345 350

Gly Ile Gln Ala Glu Glu Val Leu Gln Lys Tyr Leu Lys Ser Lys Glu 355 360 365

Ser Val Ser His Ala Ile Leu Gln Thr Asp Gln Ala Leu Thr Glu Thr 370 380

Glu Lys Lys Lys Lys Glu Ala Gln Val Lys Ala Glu Ala Glu Lys Ala 385 390 395 400

Glu Ala Gln Arg Leu Ala Ala Ile Gln Arg Gln Asn Glu Gln Met Met 405 410 415

Gln Glu Arg Glu Arg Leu His Gln Glu Gln Val Arg Gln Met Glu Ile 420 425 430

Ala Lys Gln Asn Trp Leu Ala Glu Gln Gln Lys Met Gln Gln Gln Gln 435 440 445

Met Gln Glu Gln Ala Ala Gln Leu Ser Thr Thr Phe Gln Ala Gln Asn 450 455 460

Arg Ser Leu Leu Ser Glu Leu Gln His Ala Gln Arg Thr Val Asn Asn 465 470 475 480

Asp Asp Pro Cys Val Leu Leu 485

<210> 348 <211> 472

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429

PCT/US2004/011104

<212> PRT

<213> Homo sapien

<400> 348

Trp Ile Gly Arg Pro Gly Arg Ala Trp Ser Arg Pro Arg Tyr Asn Thr

1 10 15

Val Asn Lys Ile Asp Gln Gly Ala Ile Asp Leu Leu His Asn Val Thr 20 25 30

Glu Leu Thr Asp Leu Leu Lys Ala Arg Asn Ser Pro Asp Leu Asp Arg 35 40 45

Val Glu Asp Pro Ala Asp Ser Ala Ser Phe Phe Pro Asp Leu Val Trp 50 55 60

Thr Leu Arg Asp Phe Cys Leu Gly Leu Glu Ile Asp Gly Gln Leu Val 65 70 75 80

Thr Pro Asp Glu Tyr Leu Glu Asn Ser Leu Arg Pro Lys Gln Gly Ser 85 90 95

Asp Gln Arg Val Gln Asn Phe Asn Leu Pro Arg Leu Cys Ile Gln Lys
100 105 110

Phe Phe Pro Lys Lys Lys Cys Phe Ile Phe Asp Leu Pro Ala His Gln
115 120 125

Lys Lys Leu Ala Gln Leu Glu Thr Leu Pro Asp Asp Glu Leu Glu Pro
130 135 140

Glu Phe Val Gln Gln Val Thr Glu Phe Cys Ser Tyr Ile Phe Ser His 145 150 155 160

Ser Met Thr Lys Thr Leu Pro Gly Gly Ile Met Val Asn Gly Ser Arg 165 170 175

Leu Lys Asn Leu Val Leu Thr Tyr Val Asn Ala Ile Ser Ser Gly Asp 180 185 190

Leu Pro Cys Ile Glu Asn Ala Val Leu Ala Leu Ala Gln Arg Glu Asn 195 200 205

Ser Ala Ala Val Gln Lys Ala Ile Ala His Tyr Asp Gln Gln Met Gly 210 215 220

430

Gln Lys Val Gln Leu Pro Met Glu Thr Leu Gln Glu Leu Leu Asp Leu 225 230 235 240

His Arg Thr Ser Glu Arg Glu Ala Ile Glu Val Phe Met Lys Asn Ser 245 250 255

Phe Lys Asp Val Asp Gln Ser Phe Gln Lys Glu Leu Glu Thr Leu Leu 260 265 270

Asp Ala Lys Gln Asn Asp Ile Cys Lys Arg Asn Leu Glu Ala Ser Ser 275 280 285

Asp Tyr Cys Ser Ala Leu Leu Lys Asp Ile Phe Gly Pro Leu Glu Glu 290 295 300

Ala Val Lys Gln Gly Ile Tyr Ser Lys Pro Gly Gly His Asn Leu Phe 305 310 315 320

Ile Gln Lys Thr Glu Glu Leu Lys Ala Lys Tyr Tyr Arg Glu Pro Arg 325 330 335

Lys Gly Ile Gln Ala Glu Glu Val Leu Gln Lys Tyr Leu Lys Ser Lys 340 345 350

Glu Ser Val Ser His Ala Ile Leu Gln Thr Asp Gln Ala Leu Thr Glu 355 360 365

Thr Glu Lys Lys Lys Glu Ala Gln Val Lys Ala Glu Ala Glu Lys 370 375 380

Ala Glu Ala Gln Arg Leu Ala Ala Ile Gln Arg Gln Asn Glu Gln Met 385 390 395 400

Met Gln Glu Arg Glu Arg Leu His Gln Glu Gln Val Arg Gln Met Glu 405 410 415

Ile Ala Lys Gln Asn Trp Leu Ala Glu Gln Gln Lys Met Gln Glu Gln 420 425 430

Gln Met Gln Glu Gln Ala Ala Gln Leu Ser Thr Thr Phe Gln Ala Gln 435 440 445

Asn Arg Ser Leu Leu Ser Glu Leu Gln His Ala Gln Arg Thr Val Asn 450 455 460

Asn Asp Asp Pro Cys Val Leu Leu

431

465 470

<210> 349

<211> 401

<212> PRT

<213> Homo sapien

<400> 349

Met Gly Gly Asp Leu Val Leu Gly Leu Gly Ala Leu Arg Arg Lys
1 5 10 15

. Arg Leu Leu Glu Glu Lys Ser Leu Ala Gly Trp Ala Leu Val Leu 20 25 30

Ala Gly Thr Gly Ile Gly Leu Met Val Leu His Ala Glu Met Leu Trp 35 40 45

Phe Gly Gly Cys Ser Trp Ala Leu Tyr Leu Phe Leu Val Lys Cys Thr 50 55 60

Ile Ser Ile Ser Thr Phe Leu Leu Cys Leu Ile Val Ala Phe His 65 70 75 80

Ala Lys Glu Val Gln Leu Phe Met Thr Asp Asn Gly Leu Arg Asp Trp 85 90 95

Arg Val Ala Leu Thr Gly Arg Gln Ala Ala Gln Ile Val Leu Glu Leu 100 105 110

Val Val Cys Gly Leu His Pro Ala Pro Val Arg Gly Pro Pro Cys Val 115 120 125

Gln Asp Leu Gly Ala Pro Leu Thr Ser Pro Gln Pro Trp Pro Gly Phe
130 135 140

Leu Gly Gln Gly Glu Ala Leu Leu Ser Leu Ala Met Leu Leu Arg Leu 145 150 155 160

Tyr Leu Val Pro Arg Ala Val Leu Leu Arg Ser Gly Val Leu Leu Asn 165 170 175

Ala Ser Tyr Arg Ser Ile Gly Ala Leu Asn Gln Val Arg Phe Arg His

Trp Phe Val Ala Lys Leu Tyr Met Asn Thr His Pro Gly Arg Leu Leu 195 200 205

432

Leu Gly Leu Thr Leu Gly Leu Trp Leu Thr Thr Ala Trp Val Leu Ser 210 215 220

Val Ala Glu Arg Gln Ala Val Asn Ala Thr Gly His Leu Ser Asp Thr 225 230 235 240

Leu Trp Leu Ile Pro Ile Thr Phe Leu Thr Ile Gly Tyr Gly Asp Val 245 250 255

Val Pro Gly Thr Met Trp Gly Lys Ile Val Cys Leu Cys Thr Gly Val 260 265 270

Met Gly Val Cys Cys Thr Ala Leu Leu Val Ala Val Val Ala Arg Lys 275 280 285

Leu Glu Phe Asn Lys Ala Glu Lys His Val His Asn Phe Met Met Asp 290 295 300

Ile Gln Tyr Thr Lys Glu Met Lys Glu Ser Ala Ala Arg Val Leu Gln 305 310 315 320

Glu Ala Trp Met Phe Tyr Lys His Thr Arg Arg Lys Glu Ser His Ala 325 330 335

Ala Arg Arg His Gln Arg Lys Leu Leu Ala Ala Ile Asn Ala Arg Ala 340 345 350

Ala Leu Tyr Ala His Val Ser Met Cys Thr His Val Gln Val Thr Ser

Leu His Gly Cys Val Cys Ala Cys Pro Cys Leu Ser Arg Ser Gly His 370 375 380

Pro Gly Val Val Ser Leu Asn Ile Gln Val Ser Pro Gly Ser Asp Arg 385 390 395 400

Ala

<210> 350

<211> 134

<212> PRT

<213> Homo sapien

<400> 350

Met Ala Gly Arg Gln Gly Arg Leu Phe Ser Ser Ala Leu Ala Leu Ser

433

10 15

Gly Gly Lys Asp Ser Val Arg Gly Trp Thr Gly Ser Glu Gly Arg Trp

Cys Thr Leu Ser Pro Ser Leu Thr Leu Asp Gly Leu Leu Pro Leu Cys 40

Leu Val Ser Leu Ser Leu Ser Ala Cys Pro Gly His Ile Val Trp Leu

Ser Ile Gln Cys Leu Cys Leu Asn Ala Leu Leu Pro Pro Gly Leu Gly

Ala Arg Lys His Leu Pro Pro Val Ser His Phe Cys Pro Pro Val Ser

Val Cys Thr Ser Val Cys Pro Thr Leu Thr Leu Pro Leu Pro Gly Leu 105

Pro Leu His Gln Ser Leu Cys Leu Ser Arg Thr His Glu Glu Glu Pro 120

Gly Tyr Phe Pro Gln Tyr 130

<210> 351

<211> 161 <212> PRT <213> Homo sapien

Gly Gly Trp Asp Leu Gly Arg Lys Ala Ser Trp Arg Lys Gly Ser Cys

Gly Gln His Pro Met Trp Leu Arg Gly Arg Gly Met Ala Gly Arg Gln

Gly Arg Leu Phe Ser Ser Ala Leu Ala Leu Ser Gly Gly Lys Asp Ser

Val Arg Gly Trp Thr Gly Ser Glu Gly Arg Trp Cys Thr Leu Ser Pro

Ser Leu Thr Leu Asp Gly Leu Leu Pro Leu Cys Leu Val Ser Leu Ser

434

Leu Ser Ala Cys Pro Gly His Ile Val Trp Leu Ser Ile Gln Cys Leu

Cys Leu Asn Ala Leu Leu Pro Pro Gly Leu Gly Ala Arg Lys His Leu 105

Pro Pro Val Ser His Phe Cys Pro Pro Val Ser Val Cys Thr Ser Val 115 120

Cys Pro Thr Leu Thr Leu Pro Leu Pro Gly Leu Pro Leu His Gln Ser 130 135

Leu Cys Leu Ser Arg Thr His Glu Glu Glu Pro Gly Tyr Phe Pro Gln 155

Tyr

<210> 352

<211> 427 <212> PRT <213> Homo sapien

<400> 352

Met Gly Gly Asp Leu Val Leu Gly Leu Gly Ala Leu Arg Arg Lys

Arg Leu Leu Glu Gln Glu Lys Ser Leu Ala Gly Trp Ala Leu Val Leu 20 25

Ala Gly Thr Gly Ile Gly Leu Met Val Leu His Ala Glu Met Leu Trp 35 40

Phe Gly Gly Cys Ser Trp Ala Leu Tyr Leu Phe Leu Val Lys Cys Thr 50

Ile Ser Ile Ser Thr Phe Leu Leu Cys Leu Ile Val Ala Phe His 70

Ala Lys Glu Val Gln Leu Phe Met Thr Asp Asn Gly Leu Arg Asp Trp

Arg Val Ala Leu Thr Gly Arg Gln Ala Ala Gln Ile Val Leu Glu Leu

Val Val Cys Gly Leu His Pro Ala Pro Val Arg Gly Pro Pro Cys Val

435

125 115 120 Gln Asp Leu Gly Ala Pro Leu Thr Ser Pro Gln Pro Trp Pro Gly Phe Leu Gly Gln Gly Glu Ala Leu Leu Ser Leu Ala Met Leu Leu Arg Leu Tyr Leu Val Pro Arg Ala Val Leu Leu Arg Ser Gly Val Leu Leu Asn 165 Ala Ser Tyr Arg Ser Ile Gly Ala Leu Asn Gln Val Arg Phe Arg His 185 Trp Phe Val Ala Lys Leu Tyr Met Asn Thr His Pro Gly Arg Leu Leu Leu Gly Leu Thr Leu Gly Leu Trp Leu Thr Thr Ala Trp Val Leu Ser 215 Val Ala Glu Arg Gln Ala Val Asn Ala Thr Gly His Leu Ser Asp Thr 230 235 Leu Trp Leu Ile Pro Ile Thr Phe Leu Thr Ile Gly Tyr Gly Asp Val 245 250 255 Val Pro Gly Thr Met Trp Gly Lys Ile Val Cys Leu Cys Thr Gly Val Met Gly Val Cys Cys Thr Ala Leu Leu Val Ala Val Val Ala Arg Lys Leu Glu Phe Asn Lys Ala Glu Lys His Val His Asn Phe Met Met Asp 295 Ile Gln Tyr Thr Lys Glu Met Lys Glu Ser Ala Ala Arg Val Leu Gln 315 Glu Ala Trp Met Phe Tyr Lys His Thr Arg Arg Lys Glu Ser His Ala 325 330 Ala Arg Arg His Gln Arg Lys Leu Leu Ala Ala Ile Asn Ala Phe Arg 340 Gln Val Arg Leu Lys His Arg Lys Leu Arg Glu Gln Val Asn Ser Met

360

355

436

Val Asp Ile Ser Lys Met His Met Ile Leu Tyr Asp Leu Gln Gln Asn 380 375

Leu Ser Ser Ser His Arg Ala Leu Glu Lys Gln Ile Asp Thr Leu Ala 390 395

Gly Lys Leu Asp Ala Leu Thr Glu Leu Leu Ser Thr Ala Leu Gly Pro 405

Arg Gln Leu Pro Glu Pro Ser Gln Gln Ser Lys 420

<210> 353

<211> 66

<212> PRT

<213> Homo sapien

<400> 353

Met His Ala Arg Ala Ala Gln Cys Asp Gly Cys Gly Arg Gly Glu Val

Lys Ala Met Ile Glu Thr Lys Thr Gly Ile Ile Pro Glu Thr Gln Ile 25

Val Thr Cys Asn Gly Lys Arg Leu Glu Asp Gly Lys Met Met Ala Asp 35

Tyr Gly Ile Arg Lys Gly Asn Leu Leu Phe Leu Ala Ser Tyr Cys Ile

Gly Gly 65

<210> 354 <211> 74

<212> PRT

<213> Homo sapien

<400> 354

Asp Pro Asp Cys Asp Leu Gln Trp Lys Glu Thr Gly Arg Trp Glu Asp

Asp Gly Arg Leu Arg His Gln Lys Gly Gln Leu Thr Leu Pro Gly Ile 25

Leu Leu Tyr Trp Arg Val Thr Thr Leu Gly Met Gly Cys Trp Gln Gly

437

35 40 45

Ser Lys Ser Leu Phe Leu Leu Ile Ser Tyr Ser Thr Asn Thr Ser Ser 55

Asp Asp Phe Pro Lys Leu Met Arg Met Arg 70

<210> 355 <211> 535 <212> PRT <213> Homo sapien

<400> 355

Met Pro Gly Trp Ile Phe Ser Val Gly Ser Ser Ile Ala Arg Arg Ala

Phe Leu Thr Trp Gln Lys Gln Ala His Gly Pro Leu Pro Leu Glu Cys 20 25

Ile Cys Leu Thr Cys Leu Gly Thr Ala Val Gln Glu His Leu Val Trp

Pro Gly Gly Trp Glu Gly Thr Thr Cys Asn Ile Ala Arg. Asn Ser Ser

Cys Leu Pro Asn Pro Cys His Asn Gly Gly Thr Cys Val Val Asn Gly

Glu Ser Phe Thr Cys Val Cys Lys Glu Gly Trp Glu Gly Pro Ile Cys

Ala Gln Asn Thr Asn Asp Cys Ser Pro His Pro Cys Tyr Asn Ser Gly 105

Thr Cys Val Asp Gly Asp Asn Trp Tyr Arg Cys Glu Cys Ala Pro Gly 115

Phe Ala Gly Pro Asp Cys Arg Ile Asn Ile Asn Glu Cys Gln Ser Ser 130 135

Pro Cys Ala Phe Gly Ala Thr Cys Val Asp Glu Ile Asn Gly Tyr Arg 150

Cys Val Cys Pro Pro Gly His Ser Gly Ala Lys Cys Gln Glu Val Ser 170

438

Gly Arg Pro Cys Ile Thr Met Gly Ser Val Ile Pro Asp Gly Ala Lys 180 185 190

Trp Asp Asp Cys Asn Thr Cys Gln Cys Leu Asn Gly Arg Ile Ala 195 200 205

Cys Ser Lys Val Trp Cys Gly Pro Arg Pro Cys Leu Leu His Lys Gly 210 215 220

His Ser Glu Cys Pro Ser Gly Gln Ser Cys Ile Pro Ile Leu Asp Asp 225 230 235 240

Gln Cys Phe Val His Pro Cys Thr Gly Val Gly Glu Cys Arg Ser Ser 245 250 255

Ser Leu Gln Pro Val Lys Thr Lys Cys Thr Ser Asp Ser Tyr Tyr Gln 260 265 270

Asp Asn Cys Ala Asn Ile Thr Phe Thr Phe Asn Lys Glu Met Met Ser 275 280 285

Pro Gly Leu Thr Thr Glu His Ile Cys Ser Glu Leu Arg Asn Leu Asn 290 295 300

Ile Leu Lys Asn Val Ser Ala Glu Tyr Ser Ile Tyr Ile Ala Cys Glu 305 310 315 320

Pro Ser Pro Ser Ala Asn Asn Glu Ile His Val Ala Ile Ser Ala Glu 325 330 335

Asp Ile Arg Asp Asp Gly Asn Pro Ile Lys Glu Ile Thr Asp Lys Ile 340 345 350

Ile Asp Leu Val Ser Lys Arg Asp Gly Asn Ser Ser Leu Ile Ala Ala 355 360 365

Val Ala Glu Val Arg Val Gln Arg Arg Pro Leu Lys Asn Arg Thr Asp 370 375 380

Phe Leu Val Pro Leu Leu Ser Ser Val Leu Thr Val Ala Trp Ile Cys 385 390 395 400

Cys Leu Val Thr Ala Phe Tyr Trp Cys Leu Arg Lys Arg Arg Lys Pro
405 410 415

439

Gly Ser His Thr His Ser Ala Ser Glu Asp Asn Thr Thr Asn Asn Val

Arg Glu Gln Leu Asn Gln Ile Lys Asn Pro Ile Glu Lys His Gly Ala 440

Asn Thr Val Pro Ile Lys Asp Tyr Glu Asn Lys Asn Ser Lys Met Ser 455 450

Lys Ile Arg Thr His Asn Ser Glu Val Glu Glu Asp Asp Met Asp Lys 470 475

His Gln Gln Lys Ala Arg Phe Ala Lys Gln Pro Ala Tyr Thr Leu Val

Asp Arg Glu Glu Lys Pro Pro Asn Gly Thr Pro Thr Lys His Pro Asn 500 505

Trp Thr Asn Lys Gln Asp Asn Arg Asp Leu Glu Ser Ala Gln Ser Leu 520

Asn Arg Met Glu Tyr Ile Val

<210> 356 <211> 209 <212> PRT <213> Homo sapien

<400> 356

Met Leu Tyr Ile Tyr Gln His Thr Thr Ser Ala Ser Asn Lys Lys Glu

Leu Glu Leu Asp Ile Cys Gln Arg Leu Pro Glu Ile Arg Trp Lys Leu

Phe Leu Leu Ile Phe Leu Ile Arg Phe Tyr Met Arg Thr Asn Pro Phe

Tyr Pro Glu Val Glu Leu Asn Phe Ile Ser Val Phe Trp Pro Gln Leu

Pro Asn Gly Leu Glu Ala Ala Tyr Glu Phe Ala Asp Arg Asp Glu Val

Arg Phe Phe Lys Gly Asn Lys Tyr Trp Ala Val Gln Gly Gln Asn Val

Leu His Gly Tyr Pro Lys Asp Ile Tyr Ser Ser Phe Gly Phe Pro Arg 100 \$105

Thr Val Lys His Ile Asp Ala Ala Leu Ser Glu Glu Asn Thr Gly Lys 115 120 125

Thr Tyr Phe Phe Val Ala Asn Lys Tyr Trp Arg Tyr Asp Glu Tyr Lys 130 135 140

Arg Ser Met Asp Pro Gly Tyr Pro Lys Met Ile Ala His Asp Phe Pro 145 150 155 160

Gly Ile Gly His Lys Val Asp Ala Val Phe Met Lys Asp Gly Phe Phe 165 170 175

Tyr Phe Phe His Gly Thr Arg Gln Tyr Lys Phe Asp Pro Lys Thr Lys
180 185 190

Arg Ile Leu Thr Leu Gln Lys Ala Asn Ser Trp Phe Asn Cys Arg Lys
195 200 205

Asn

<210> 357

<211> 640

<212> PRT

<213> Homo sapien

<400> 357

Met Lys Gly His Arg Gly Phe Asp Gly Arg Asn Gly Glu Lys Gly Glu 1 5 10 15

Thr Gly Ala Pro Gly Leu Lys Gly Glu Asn Gly Leu Pro Gly Glu Asn 20 25 30

Gly Ala Pro Gly Pro Met Gly Pro Arg Gly Ala Pro Gly Glu Arg Gly 35 40 45

Arg Pro Gly Leu Pro Gly Ala Ala Gly Ala Arg Gly Asn Asp Gly Ala 50 55 60

Arg Gly Ser Asp Gly Gln Pro Gly Pro Pro Gly Pro Pro Gly Thr Ala 65 70 75 80

441

Gly Phe Pro Gly Ser Pro Gly Ala Lys Gly Glu Val Gly Pro Ala Gly 85 90 95

Ser Pro Gly Ser Asn Gly Ala Pro Gly Gln Arg Gly Glu Pro Gly Pro 100 105 110

Gln Gly His Ala Gly Ala Gln Gly Pro Pro Gly Pro Pro Gly Ile Asn 115 120 125

Gly Ser Pro Gly Gly Lys Gly Glu Met Gly Pro Ala Gly Ile Pro Gly 130 135 140

Ala Pro Gly Leu Met Gly Ala Arg Gly Pro Pro Gly Pro Ala Gly Ala 145 150 155 160

Asn Gly Ala Pro Gly Leu Arg Gly Gly Ala Gly Glu Pro Gly Lys Asn 165 170 175

Gly Ala Lys Gly Glu Pro Gly Pro Arg Gly Glu Arg Gly Glu Ala Gly
180 185 190

Pro Gly Glu Pro Gly Ala Asn Gly Leu Pro Gly Ala Ala Gly Glu Arg

Gly Ala Pro Gly Phe Arg Gly Pro Ala Gly Pro Asn Gly Ile Pro Gly 225 230 235

Glu Lys Gly Pro Ala Gly Glu Arg Gly Ala Pro Gly Pro Ala Gly Pro 245 250 255

Arg Gly Ala Ala Gly Glu Pro Gly Arg Asp Gly Val Pro Gly Gly Pro 260 265 270

Gly Met Arg Gly Met Pro Gly Ser Pro Gly Gly Pro Gly Ser Asp Gly
275 280 285

Lys Pro Gly Pro Pro Gly Ser Gln Gly Glu Ser Gly Arg Pro Gly Pro

Pro Gly Pro Ser Gly Pro Arg Gly Gln Pro Gly Val Met Gly Phe Pro 305 310 315 320

Gly Pro Lys Gly Asn Asp Gly Ala Pro Gly Lys Asn Gly Glu Arg Gly

325 330 335

Gly Pro Gly Gly Pro Gly Pro Gly Pro Pro Gly Lys Asn Gly Glu 340 345 350

Thr Gly Pro Gln Gly Pro Pro Gly Pro Thr Gly Pro Gly Gly Asp Lys 355 360 365

Gly Asp Thr Gly Pro Pro Gly Pro Gln Gly Leu Gln Gly Leu Pro Gly 370 375 380

Thr Gly Gly Pro Pro Gly Glu Asn Gly Lys Pro Gly Glu Pro Gly Pro 385 390 395 400

Lys Gly Asp Ala Gly Ala Pro Gly Ala Pro Gly Gly Lys Gly Asp Ala
405 410 415

Gly Ala Pro Gly Glu Arg Gly Pro Pro Gly Leu Ala Gly Ala Pro Gly 420 425 430

Leu Arg Gly Gly Ala Gly Pro Pro Gly Pro Glu Gly Gly Lys Gly Ala
435
440
445

Ala Gly Pro Pro Gly Pro Pro Gly Ala Ala Gly Thr Pro Gly Leu Gln 450 455 460

Gly Met Pro Gly Glu Arg Gly Gly Leu Gly Ser Pro Trp Ser Ser Gln 465 470 475 480

Arg Trp Phe Arg Leu Gln Leu Pro Ala Pro Ala Thr Ser Arg Glu Gly
485 490 495

Ser Arg Gly Gly Arg Tyr Tyr Arg Ala Asp Asp Ala Asn Val Val Arg 500 510

Asp Arg Asp Leu Glu Val Asp Thr Thr Leu Lys Ser Leu Ser Gln Gln 515 520 525

Ile Glu Asn Ile Arg Ser Pro Glu Gly Ser Arg Lys Asn Pro Ala Arg
530 535 540

Thr Cys Arg Asp Leu Lys Met Cys His Ser Asp Trp Lys Ser Gly Glu 545 550 555

Tyr Trp Ile Asp Pro Asn Gln Gly Cys Asn Leu Asp Ala Ile Lys Val 565 570 575

Phe Cys Asn Met Glu Thr Gly Glu Thr Cys Val Tyr Pro Thr Gln Pro

Ser Val Ala Gln Lys Asn Trp Tyr Ile Asn Lys Asn Pro Lys Asp Lys 600

Arg His Val Trp Phe Gly Glu Ser Met Thr Asp Gly Ile Pro Phe Gln

Phe Gly Gly Gln Gly Phe Asp Pro Ser Asp Val Ala Ile Gln Leu Thr 630

<210> 358 <211> 567

<212> PRT

<213> Homo sapien

<400> 358

Gln Gly Pro Pro Gly Glu Pro Gly Gln Ala Gly Pro Ser Gly Pro Pro

Gly Pro Pro Gly Ala Ile Gly Pro Ser Gly Pro Ala Gly Lys Asp Gly

Glu Ser Gly Arg Pro Gly Arg Pro Gly Glu Arg Gly Leu Pro Gly Pro

Pro Gly Ile Lys Gly Pro Ala Gly Ile Pro Gly Phe Pro Gly Met Lys

Gly His Arg Gly Phe Asp Gly Arg Asn Gly Glu Lys Gly Glu Thr Gly

Ala Pro Gly Leu Lys Gly Glu Asn Gly Leu Pro Gly Glu Asn Gly Ala 90

Pro Gly Pro Met Gly Pro Arg Gly Ala Pro Gly Glu Arg Gly Arg Pro 105

Gly Leu Pro Gly Ala Ala Gly Ala Arg Gly Asn Asp Gly Ala Arg Gly 115 120

Ser Asp Gly Gln Pro Gly Pro Pro Gly Pro Pro Gly Thr Ala Gly Phe 130

444

Pro Gly Ser Pro Gly Ala Lys Gly Glu Val Gly Pro Ala Gly Ser Pro 145 150 155 160

Gly Ser Asn Gly Ala Pro Gly Gln Arg Gly Glu Pro Gly Pro Gln Gly
165 170 175

His Ala Gly Ala Gln Gly Pro Pro Gly Pro Pro Gly Ile Asn Gly Ser 180 185 190

Pro Gly Gly Lys Gly Glu Met Gly Pro Ala Gly Ile Pro Gly Ala Pro 195 200 205

Gly Leu Met Gly Ala Arg Gly Pro Pro Gly Pro Ala Gly Ala Asn Gly 210 215 220

Ala Pro Gly Leu Arg Gly Gly Ala Gly Glu Pro Gly Lys Asn Gly Ala 225 230 235 240

Lys Gly Glu Pro Gly Pro Arg Gly Glu Arg Gly Glu Ala Gly Ile Pro 245 250 255

Gly Val Pro Gly Ala Lys Gly Glu Asp Gly Lys Asp Gly Ser Pro Gly 260 265 270

Glu Pro Gly Ala Asn Gly Leu Pro Gly Ala Ala Gly Glu Arg Gly Ala 275 280 285

Pro Gly Phe Arg Gly Pro Ala Gly Pro Asn Gly Ile Pro Gly Glu Lys 290 295 300

Gly Pro Ala Gly Glu Arg Gly Ala Pro Gly Pro Ala Gly Pro Arg Gly 305 310 315 320

Ala Ala Gly Glu Pro Gly Arg Asp Gly Val Pro Gly Gly Pro Gly Met 325 330 335

Arg Gly Met Pro Gly Ser Pro Gly Gly Pro Gly Ser Asp Gly Lys Pro 340 345 350

Gly Pro Pro Gly Ser Gln Gly Glu Ser Gly Arg Pro Gly Pro Pro Gly

Pro Ser Gly Pro Arg Gly Gln Pro Gly Val Met Gly Phe Pro Gly Pro 370 380

Lys Gly Asn Asp Gly Ala Pro Gly Lys Asn Gly Glu Arg Gly Gly Pro

445

385 390 395 400

Gly Gly Pro Gly Pro Gln Gly Pro Pro Gly Lys Asn Gly Glu Thr Gly 405 410 415

Pro Gln Gly Pro Pro Gly Pro Thr Gly Pro Gly Gly Asp Lys Gly Asp 420 425 430

Thr Gly Pro Pro Gly Pro Gln Gly Leu Gln Gly Leu Pro Gly Thr Gly 435 440 445

Gly Pro Pro Gly Glu Asn Gly Lys Pro Gly Glu Pro Gly Pro Lys Gly 450 450 460

Asp Ala Gly Ala Pro Gly Ala Pro Gly Gly Lys Gly Asp Ala Gly Ala 465 470 475

Pro Gly Glu Arg Gly Pro Pro Gly Leu Ala Gly Ala Pro Gly Leu Arg
485 490 495

Gly Gly Ala Gly Pro Gly Pro Glu Gly Gly Lys Gly Ala Ala Gly 500 505 510

Pro Pro Gly Pro Pro Gly Ala Ala Gly Thr Pro Gly Leu Gln Gly Met 515 520 525

Pro Gly Glu Arg Gly Gly Leu Gly Ser Pro Trp Ser Ser Gln Arg Trp 530 535 540

Phe Arg Leu Gln Leu Pro Ala Pro Ala Thr Ser Arg Glu Gly Ser Arg 545 550 555

Trp Trp Pro Leu Leu Pro Gly 565

<210> 359

<211> 156

<212> PRT

<213> Homo sapien

<400> 359

Lys Leu Arg Glu Val Ala Arg Leu Gly Gly Val Val Ser Ile Glu Asp 1 5 10 15

Pro Phe Asp Gln Asp Asp Trp Gly Ala Trp Gln Lys Phe Thr Ala Ser 20 25 30

446

Ala Gly Ile Gln Val Val Gly Asp Asp Leu Thr Val Thr Asn Pro Lys 35 40 45

Arg Ile Ala Lys Ala Val Asn Glu Lys Ser Cys Asn Cys Leu Leu Leu 50 55 60

Lys Val Asn Gln Ile Gly Ser Val Thr Glu Ser Leu Gln Ala Cys Lys 65 70 75 80

Leu Ala Gln Ala Asn Gly Trp Gly Val Met Val Ser His Arg Ser Gly 85 90 95

Glu Thr Glu Asp Thr Phe Ile Ala Asp Leu Val Val Gly Leu Cys Thr 100 105 110

Gly Gln Ile Lys Thr Gly Ala Pro Cys Arg Ser Glu Arg Leu Ala Lys 115 120 125

Tyr Asn Gln Leu Leu Arg Ile Glu Glu Glu Leu Gly Ser Lys Ala Lys 130 135 140

Phe Ala Gly Arg Asn Phe Arg Asn Pro Leu Ala Lys 145 150 155

<210> 360

<211> 108

<212> PRT

<213> Homo sapien

<400> 360

Met Ile Arg Leu Ala Ile Trp Gly Arg Val Ser Leu Arg Thr His Ser 1 10 15

Pro Trp Pro Pro Cys Phe Gln Pro His Ser Trp Pro Cys Pro Val Leu 20 25 30

Ser Ser Leu Gly Gly Thr Cys Thr Cys Arg Phe Met Ala Gly Lys Pro

Ala Val Thr His Asp Val Asp Gly Ser Ser Ala Pro Pro Cys Gly Gln 50 55 60

Glu Ser Trp Cys Val Asp Ser Gly Val Pro Glu Pro Ala Cys Ser Gly 65 70 75 80

Ser Arg Val Pro Met Leu Ala Ser Ile Ala Val Cys Ser Gln Ser Ala

447

85 95 90

Lys Tyr Ser Phe Thr Val Arg Thr Gly Thr Gln Ala 100 105

<210> 361 <211> 125 <212> PRT

<213> Homo sapien

<400> 361

Gly Met Ser Asp Gly Ser Pro Asp Glu Trp Arg Gly Gly Leu Thr Gly

Ala Cys Pro Gly Gly Gly Lys Trp Val Gly Leu Ala Leu Ala Arg Gln 25

Glu Val Gly Ala Gly Gly Ala Asp Ser Ile Cys Gly Tyr Pro Glu His 35 40

Gly Asp Leu Ala Gly Phe Thr Phe Thr Ser Val Ser Ala Ala Pro Ser 55

Ala Ser Ser Pro Arg Arg Arg Pro Val Ala Arg Ser Ser Pro Cys 70

Leu Phe Ser Arg Ser Met Pro Gly Arg Ser Leu Thr Leu Ala Gly Ile

Pro Leu Leu Arg Leu Ile Ser Ser Pro Gln Lys Val Ser Ser Glu Leu 105

Leu Cys Pro Val Val Leu Gln Leu Val Ser Met Arg Pro 115 120

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<213> Artificial sequence

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<223> Synthetic

<400> 362

gatgtgactc ttgcacatta tttgc

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<210> 363 <211> 22 <212> DNA

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gccgca	ataa ttccatagtc aag	23
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WO 2004/092338

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